



# Plymouth Marine Laboratory

United Kingdom

Director: Dr B L Bayne

REPLY TO:

☐ Prospect Place, West Hoe, Plymouth PL1 3DH

☒ Citadel Hill, Plymouth PL1 2PB

Telephone (0752) 222772 Fax (0752) 670637 Telegrams PMLT PLYMOUTH

Date: September 1988

Dear Colleague,

European Marine and Freshwater Sciences Librarians, Information Scientists and  
Documentalists

I enclose the report of the First Meeting of the European Marine and Freshwater Sciences Librarians, Information Scientists and Documentalists, which was held in Plymouth in April 1988.

Your address has been given to me by one of the participants, who felt that you would probably be interested in the work of the Group.

I should be grateful if you would complete the form below to register your interest.

It is hoped to produce a newsletter later in the year, and if you have any items of news or comment which you feel would be of interest, please send them to me, preferably on an IBM PC Disk.

yours sincerely,

David S Moulder

**EUROPEAN MARINE AND FRESHWATER  
SCIENCES LIBRARIANS,  
INFORMATION SCIENTISTS  
AND DOCUMENTALISTS**

Report of the First Meeting,  
Plymouth, United Kingdom,  
20-21 April 1988

Plymouth Marine Laboratory  
Marine Biological Association Library  
Plymouth PL1 2PB  
United Kingdom

1988

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**Plymouth Marine Laboratory  
Marine Biological Association Library  
Citadel Hill  
Plymouth PL1 2PB  
United Kingdom**

**Price: £6**

**ISBN: 0 903241 06 4**

## INTRODUCTION

The objectives of the first meeting of European Marine and Freshwater Sciences Librarians, Information Scientists and Documentalists were to establish and strengthen links; to discuss national, European and international initiatives on information handling, to exchange views on practical day-to-day technical matters, and to improve inter-library collaboration through the development of a European information network.

The meeting was attended by 36 participants, from Belgium, Denmark, Eire, England, Finland, France, Monaco, Portugal, Scotland, the USA, and Wales.

Following a session of short descriptions of the current situation and developments in each country and institution represented, the group discussed library computing; national, regional and international information networks; library publishing, and user needs. The compact disc (CD-ROM) version of the **Aquatic Sciences and Fisheries Abstracts (ASFA)** database was demonstrated.

There was unanimous agreement that closer collaboration within Europe would be fruitful and should be encouraged, and an informal working network within Europe should be the aim. This could be achieved by building on existing national groups and networks, by encouraging countries without networks to develop them, and to integrate all into a European group.

The first steps will be to identify networks, institutions and individuals throughout Europe who might usefully cooperate, and to compile a directory of European marine and freshwater science information resources. In order to maintain the enthusiasm and momentum generated by the Plymouth meeting it is hoped that regular national and European meetings will be arranged, and that a newsletter will be produced.

Plymouth,  
September 1988

Allen Varley, Chairman  
David Moulder, Editor



**European Marine and Freshwater Sciences Librarians, Information Scientists  
and Documentalists**

**First Meeting, Plymouth, United Kingdom, 20-21 April 1988**

**Wednesday 20th April**

**1. Welcome**

Allen Varley, Head of Library and Information Services for the Plymouth Marine Laboratory (PML), welcomed everyone to the meeting, and introduced Dr Gerald Boalch, Bursar of the Marine Biological Association (MBA). He noted that Dr Boalch had taken a keen interest in the work of the Library, and was editor of **Botanica Marina** and a number of other publications.

Dr Boalch reiterated the welcome to the Laboratory, and gave a brief history of the MBA, and its merger with the Institute for Marine Environmental Research (IMER) to form the Plymouth Marine Laboratory. He stressed the good reputation that the library enjoyed, the excellent current awareness service provided to the staff, the many gifts of books and reprints from eminent scientists, and the services to visitors. He wished the meeting every success.

After outlining the meeting arrangements and proposed social activities, Allen Varley conveyed the apologies and best wishes from colleagues who had hoped to attend from Finland, Germany, Iceland, Spain, the UK and FAO in Rome.

**1.1. Introductions**

Allen Varley explained that the purpose of this session was for each library and information unit represented to introduce themselves, and to say a few words about their present situation and current developments.

**1.1.1. Nordsocentret, Hirtshals, Denmark: Jean Collins.**

The North Sea Centre is situated at the Northwest tip of Jutland. It was established to bring together fisheries and marine research activities including government, semi-private and private organizations, and to coordinate and improve fisheries research. There are a number of common facilities, including a library. At present there are 150 staff on the site, and 50 regular users of the library and information services. The library has a staff of two.

**1.1.2. Institute of Hydrology (IH), Wallingford, UK: Susan Wharton.**

IH is part of the Terrestrial and Freshwater Sciences Directorate of the Natural Environment Research Council. There are about 200 staff on the site, covering the subjects of hydrology and hydrogeology. The library has a staff of two, takes about 200 serial titles, and produces a weekly library bulletin. They are now starting to move into the use of computers in a small way.

**1.1.3. Musee Oceanographique de Monaco, Monaco: Jacqueline Carpine-Lancre**

The Museum, which is a private foundation, was founded in 1910 by Prince Albert I. The library has over 20,000 books and 3,500 serial titles, including 1,200 current serial titles. A weekly current awareness bulletin is produced. Cataloguing and indexing is still by manual methods. The library has many visitors and deals with numerous requests, particularly relating to the historical aspects of oceanography.

**1.1.4. Scripps Institution of Oceanography, La Jolla, USA: Bill Goff**

Scripps was founded in 1903 and is part of the University of California. There are over 1100 staff on the site, and research is undertaken on all aspects of the marine sciences. The library is part of the San Diego Campus library. There are 22 staff, including four professionals. They provide a range of services, including online searches, **ASFA** on compact disc, etc. Tutorial software for the compact disc has been prepared.

**1.1.5. Water Research Centre (WRC), Stevenage, UK: Geoff Bothamley**

WRC is a private company with over 600 staff, the largest water research organization in Europe. It has three sites, with separate libraries on each, and each has two staff. In addition it produces **Aqualine**, an online database, with a hardcopy product **Aqualine Abstracts**. Four staff produce **Aqualine**, which is commercially available through Pergamon Orbit Infoline. WRC is a WHO collaborating centre, and it also has links with WMO and the Delft Hydraulics Laboratory.

**1.1.6. Department of the Marine, Dublin, Eire: Mary Moore**

The Department has two libraries, a main library and a fisheries resources centre. The subjects covered now include shipping, aquaculture etc. There are a total of 50 staff and two library staff. A monthly accessions list is produced. The computer program INMAGIC is available.

**1.1.7. Department of Agriculture and Fisheries for Scotland (DAFS),  
Aberdeen, UK: John Burne.**

The Department is over 100 years old. The Marine Laboratory at Aberdeen has a library staff which includes one and a half professionals plus clerical staff, and produces a number of current awareness publications, including a quarterly bulletin for shellfish farming and a monthly review of the literature for salmon farmers. The CAIRS software is available, with an online catalogue and issues system. There are strong links with the Torry Research Station and the Institute of Marine Biochemistry.

**1.1.8. Ministry of Agriculture, Fisheries and Food, Lowestoft, UK: Mike Rolfe and Derek Bate.**

The Laboratory deals with the subjects of living fisheries and environmental protection, and there are about 300 staff on a number of sites. The library is a part of information services, which includes publications and public relations. The Lowestoft library has four and a half staff, with one clerical person at Burnham on Crouch and part-time clerical people at Weymouth and Conwy. Approximately 1,000 current serial titles are received. A number of small databases are available using the STATUS software, and there is also an online catalogue. An Amstrad computer is used to produce distribution lists for publications.

**1.1.9. University College North Wales, Bangor, UK: Paul Rolfe.**

The School of Ocean Sciences at Menai Bridge is part of the University College North Wales. The library has one full-time assistant and one professional, part-time, based at Bangor. The library takes 225 serial titles, and has about 12,500 monographs and bound volumes of periodicals and 20,000 reprints. The college has four sites, and the other three libraries are already linked by computer.

**1.1.10. Finnish Institute of Marine Research, Helsinki, Finland: Marjatta Heinanen.**

This government research organization was established in 1918, and covers the subjects of biological, physical and chemical oceanography. It has a staff of 75 carrying out basic and applied research. The library has two professional staff and two clerical staff. No computerization has been attempted so far, but it is hoped to get **ASFA** on compact disc. There is a central computerized system for Finnish publications, and a national library system is planned, using the US Virginia Tech Library System (VTLS). A five year programme will involve about 20 Finnish libraries. A cooperative effort of seven Baltic countries, through the Baltic Marine Environment Protection Commission, prepares a marine bibliography of the Baltic Sea. It has been decided that this can soon be computerized and added to **ASFA**.



**1.1.11. Imperial Chemical Industries (ICI) Plc, Brixham, UK: Doreen Willis.**

The Brixham laboratory is the Group Environmental Laboratory for ICI, concentrating on problems from substances that find their way into rivers, lakes and seas. As well as serving ICI, it carries out work on contract for many outside clients. The library has two staff, and uses INMAGIC for a number of databases, including a database on toxic chemicals.

**1.1.12. Institut Francais de Recherche pour l'Exploitation de la Mer (IFREMER), Brest, France: Claude Uguen.**

IFREMER was formed in 1984 as a result of the merger of the Centre National pour l'Exploitation des Oceans (CNEXO) and the Institut Scientifique et Technique des Peches Maritimes (ISTPM). There is a headquarters in Paris and five stations, with 1150 staff. IFREMER is responsible for research and development related to ocean resources and environmental protection. The Service de la Documentation et des Publications (SDP) has a staff of 10, and the merger of the two organizations gave the SDP an opportunity to create an online library management system with two databases, **Livremer** for books and **Revumer** for serials, accessible by all IFREMER staff from anywhere. The MINISIS software is used. IFREMER is the national coordinating input centre for **ASFA**.

**1.1.13. Haecon N.V., Gent, Belgium: Andrew Beavis.**

Haecon NV is a firm of harbour and engineering consultants, with a staff of 50. There is one part-time librarian, a civil engineer by training. He learned FORTRAN and developed a number of in-house programs (to be described later). The library takes about 200 serial titles, and holds about 12,000 books.

**1.1.14. Department of Agriculture and Fisheries for Scotland, Freshwater Fisheries Laboratory, Pitlochry, UK: Anne McConville.**

The laboratory has a staff of 60, dealing with freshwater fisheries, mainly salmon. The library has a staff of one professional, with a part-time temporary clerical person. It takes about 200 serial titles and has 2,500 books.

**1.1.15. Institute of Terrestrial Ecology (ITE), Edinburgh Research Station, Penicuik, UK: Sheila Adair.**

ITE is part of the Terrestrial and Freshwater Sciences Directorate of the Natural Environment Research Council. Most of the aquatic aspects of ITE's work are carried out at Edinburgh, including the physical, chemical and biological factors influencing plankton and fish. The total library stock comprises around 12,000 books and 800 serials. Book and staff publication

records are contained in two STATUS databases from which monthly accessions bulletins are produced.

**1.1.16. International Maritime Organization (IMO), London, UK: Marianne Harvey.**

IMO was established in 1948 and is the only specialized agency of the United Nations whose mandate is exclusively maritime. It's main function is to administer and promote international instruments in the fields of maritime safety and prevention of marine pollution and to provide assistance in the maritime field, in particular to the developing countries. The library has a staff of five, takes 300 serials and has 20,000 books. The MINISIS software is available, and is currently used for a terminology database. The library produces a monthly accessions list and provides current awareness and SDI services to staff and enquiry services to staff and visitors.

**1.1.17. University of Wales Institute of Science and Technology (UWIST), Cardiff, UK: Alison Charles.**

The Aberconway library deals with the work of the Department of Maritime Studies, which has a staff of 25, and 15 research students. The library takes about 750 serial titles, and about 100 of these are on marine, maritime, transport and related subjects. The library has a staff of five professionals and twelve clerical people.

**1.1.18. Instituto Nacional de Investigacao das Pescas (INIP), Lisbon, Portugal: Lidia Nunes.**

INIP was formed in 1975 by the merger of a number of organizations, and covers the subjects of fisheries and marine biology. It has a staff of 200, and is the main Portuguese centre for its subjects. The library goes back to the beginning of the century, and is the main Portuguese library for the aquatic sciences. It has a staff of two professionals plus clerical staff, takes 650 serial titles and has about 10,000 volumes. It is the Portuguese input centre for **ASFA**.

**1.1.19. Instituto Hidrografico Marinha (IHM), Lisbon, Portugal: Maria Helena Tavares.**

IHM, which is part of the Portuguese Navy, carries out studies and performs activities in hydrography, oceanography and navigation. The library has a staff of five, takes 400 serial titles and has 8,000 books and 5,000 slides and photographs. It produces a regular information bulletin, a current awareness service, and has a computer-produced catalogue.



**1.1.20. Proudman Oceanographic Laboratory (POL), Birkenhead, UK: Kathy Jones.**

POL is part of the Marine Sciences Directorate of the Natural Environment Research Council. Research conducted includes the dynamics of shelf and slope seas; numerical modelling; sea levels; ocean topography; tidal studies and from 1987-1992 the laboratory is host to the North Sea Project, a Community Project leading to a water quality model of the North Sea. In cooperation with the IOS Deacon Laboratory, an online library catalogue and information system is provided containing publications dated from 1985. A database of staff publications and reports is also available. The library has a staff of one professional and two part-time clerical people.

**1.1.21. Institute of Oceanographic Sciences Deacon Laboratory (IOSDL), Wormley, UK: Pauline Simpson.**

IOS was founded in 1949 as the National Institute of Oceanography, and is now part of the Marine Sciences Directorate of the Natural Environment Research Council. It has a staff of 220, and the main emphasis is multidisciplinary deep sea research. The library takes some 900 current serials, has 9,000 books, 50,000 reports, 50,000 reprints, 300 atlases and 3,000 charts. A bibliography of European marine atlases is in course of preparation. Since 1985 the library has had jointly with POL a STATUS online catalogue IOSLIB; a STATUS staff publications database IOS PUB; and issues fortnightly a marine science alert service TOPIX generated from IOSLIB. The loans system is automated as are all mailing lists.

**1.1.22. Freshwater Biological Association (FBA), Ambleside, UK: Ian Pettman.**

FBA has four sites. It was founded sixty years ago, and is currently grant-aided by the Natural Environment Research Council. There is a staff of 88, carrying out research in freshwater biology and related subjects. The library has two professional and one and a half clerical staff. Current awareness services are provided to staff, and a monthly current awareness bulletin is available commercially. Recently reprints and other material from the Culture Collection of Algae and Protozoa have been added. The library carries out contract work for the EEC on toxic chemicals in the freshwater environment.

**1.1.23. Centre National de la Recherche Scientifique (CNRS), GRECO "ECOPROPHYCE", Paris, France: Denise-Helene Hugol.**

The work of the documentalist for the joint research and study group GRECO "ECOPROPHYCE" (Groupement de Recherches et d'Etudes Coordonnees - Ecosystemes profonds et Phenomenes Physico-Chimiques Associes), based at the Institut Oceanographique in Paris, is to establish links and provide services in oceanography and the deep-sea ecosystem. Two bibliographic databases have been established: **Ecotherm**, a collection of references on all aspects of deep-sea hydrothermal vents, and **Bioabys**, a collection of references on abyssal ecosystems where there are no vents. The SUPERDOC software is used.



**1.1.24. Institut Oceanographique (IO), Paris, France: Mary Delahaye.**

IO was founded by Prince Albert I of Monaco in 1911. It is a private research organization. The library has been open to the public since its creation in 1928. It has a staff of two, and takes 450 serial titles. The library of the Zoological Society of France is merged into the same library. It has a large collection of dictionaries and glossaries, and a special catalogue of them, including dictionaries and glossaries at the ends of books and reports. An encyclopaedic dictionary of the sea is in course of preparation, with 6,000 terms in English, French, German, Spanish and Russian. It is intended that the book catalogue should be computerized.

**1.1.25. Plymouth Marine Laboratory (PML), Plymouth, UK: David Moulder.**

PML was formed in April 1988 by the merger of the Marine Biological Association, established in 1884, and the Institute for Marine Environmental Research, established in 1970. It is part of the Marine Sciences Directorate of the Natural Environment Research Council. The laboratory has a staff of 150. The laboratory undertakes interdisciplinary research into estuarine, coastal, shelf and oceanic ecosystems. The library has a staff of four professional and two clerical people. 1,300 current serial titles are received, and the library has 15,000 books and over 65,000 reprints. It provides current awareness services to staff and visitors, produces an annual British waters bibliography, a monthly current awareness bulletin **Marine Pollution Research Titles**, and undertakes work on contract for the EEC and several United Nations agencies on toxic chemicals in the marine environment. PML is the national coordinating input centre for **ASFA**.

**2. Computers in our Libraries.**

**2.1. Catalogues and In-House Databases.**

**2.1.a. Overview. Factors Influencing Decisions and Choices of Machines and Software: Ian Pettman, FBA.**

Taking the word 'overview' in its widest sense, four broad factors were identified:

1. We should devote more time to professional decision-thinking
2. We must plan for constant change and learn faster than the rate of change
3. We must recognize the type of organization within which we work and its limitations
4. We should go beyond these limitations by actively extending our collaboration and developing a flexible network of inter-connected systems

A matrix approach was suggested to aid in the decision-making process. The first stage was to ask questions about the products and services, and whether

there was a viable product. The second stage involved taking decisions, looking at the systems available, the factors influencing the choice of a suitable package, and choosing the best system for the job. The third stage was to implement the decision. This involved taking account of the management structure and type of organizational framework in which we work. A matrix of organizational types was presented:

Number	Type of Company or Government	Management Style	Philosophy
1 (USA)	Entrepreneurial	Freedom (for the founder) Autocratic (for the worker)	WIN OR BUST
2 (European)	Bureaucratic/ Analytical	Some freedom overlaid with bureaucratic or scientific management systems	HIGHLY STRUCTURED
3 (Japan)	Dynamic Tension	A mixture of art and science. An attempt to integrate all aspects of the individual's life into their work	PURSUIT OF QUALITY
4 (Fusion)	Developing People through Work	Merging of developed energies - joint personality	VISIONARY

The fourth stage involved linking up with other organizations, to build on each others' capabilities and expertise.

#### 2.1.b. CAIRS and MICROCAIRS: John Burne, DAFS and Ian Pettman, FBA.

DAFS had looked at a number of possible software packages, and had finally obtained CAIRS in early 1986. They had received little help from the computer staff at DAFS. When it became clear that the online catalogue was using an increasing amount of space in the main computer, a MicroVax 2000 with 70 MB memory was obtained. It was hoped that the catalogue back to 1975 could be added. The **Aquatic Sciences and Fisheries Thesaurus** had recently been loaded, and there was now a database of staff publications. BLAISE software was used to add material, using ISBN's. With hindsight, they might have used another system, as CAIRS was perhaps more sophisticated than they required.

FBA had started in 1980 using a word-processing system to produce their current awareness bulletin. They had had a good deal of microcomputer experience, but little experience with mainframe computers. After an evaluation of a number of software packages MICROCAIRS had been chosen, and the system would be used to produce catalogue cards, the current awareness bulletin and some management information. At present FBA had IBM AT's, a Toshiba portable computer for data entry at home, and the WORDPERFECT software was used for data entry. Databases of staff publications and contract reports had been implemented.



#### **2.1.c. STATUS at POL and IOS: Kathy Jones, POL and Pauline Simpson, IOSDL**

STATUS software had been used to provide IOSLIB (Integrated Ocean Science Libraries Database), the joint library database and online library catalogue for IOSDL and POL. The database covered worldwide literature on all disciplines of marine science. By April 1988 over 50,000 references to publications/articles dated 1985 onwards had been recorded. Some 400 references were added each fortnight. IOSLIB covered not only books, reports, monographs, atlases etc; but also articles within books, reports, serials and conference proceedings. All were indexed using the **Aquatic Sciences and Fisheries Thesaurus**. Regional identifiers from a detailed in-house geographic scheme were included. Entries for newly acquired material appeared in the database within one month of receipt. IOSLIB was run on a mainframe IBM computer at a remote NERC site and was available to all laboratory staff. Access from the NERC/JANET network and via British Telecom Packet Data Network (PSS) enabled the database to be offered for external searching. It was available online 24 hours a day, seven days a week. IOSLIB provided in addition their Marine Science Alert Service, TOPIX, for new publications and articles received in the libraries. The TOPIX Bulletin and sheets were issued fortnightly and were available externally by subscription. A backup to the online system was provided by a paper copy of an author catalogue produced monthly, cumulating every three months when a microfiche was issued. The microfiche was cumulated to form an annual author catalogue. The fiche were available for external distribution. It was hoped to convert the substantial card catalogues to machine readable form some time in the future, but with a collection amounting to some quarter million cards in the case of IOS Deacon Laboratory, the logistics of the task were daunting. A staff publication database, IOS PUB, again using the STATUS software was available on the same IBM mainframe computer. Over 5,000 references to staff publications and reports were recorded.

Data preparation programs were developed in-house using two systems. DBASE II software was used to prepare data entry on floppy disks, which was subsequently transferred to the IBM, and there was also an interactive prompt program on the IBM. The database design was prepared giving particular care to presenting a user-friendly catalogue record and well presented output format.

#### **2.1.d. STATUS at MAFF: Derek Bate, MAFF.**

A working party had been appointed to look at a number of programs, and had decided to install STATUS. There were now about 60 databases, and most of them were for non-library use, e.g. a database of agricultural machinery. Some were confidential, and some were more generally available. In 1984 the Lowestoft library started to replace their card catalogue by entering references into a STATUS database FISHLAB. Some 40,000 records had now been added, and 10,000 records a year were being processed. The library had three terminals, with terminals at the outstations, and the scientific staff were being trained to do their own searches. A menu system developed and tested by the MAFF Central Veterinary Laboratory had been mounted on the FISHLAB database. There were no plans to give access on a repayment basis, but possibly on a **quid pro quo** agreement. It was possible that some current awareness might be carried out in the future.

#### 2.1.e. **INMAGIC and CDS/ISIS: David Moulder and Allen Varley, PML.**

A brief review was given of INMAGIC, a text indexing and retrieval program, and the mechanisms for defining records and report formats, inputting, editing, searching and sorting records, and printing the results. The program was used principally for producing an annual list of papers by staff and visitors, and spin off uses such as lists of papers by individual scientists. It was also used for producing address labels, for example for **Marine Pollution Research Titles**.

CDS/ISIS was developed and supported by Unesco. It ran on mini- and microcomputers and was derived from the MINISIS software produced by the International Development Research Centre (IDRC) in Canada. The micro version had a limit of 35,000 records in one database, while the mini version could support 500,000 records. The system was recommended by the United Nations, and conformed to ISO 2709 and the Common Communication Format (CCF). FAO had developed a number of input screens for its use in preparing **ASFA** input. The program was free to non-profit making institutes in Unesco member states. It was powerful and flexible, and similar to other library packages, allowing one to define records and formats, input records, search and sort records, and print the results in any desired format. Its use at PML was being tested with a number of small bibliographies and contract databases, and it was hoped that the library cataloguing and production of library publications such as **Marine Pollution Research Titles** could be handled with it.

#### 2.1.f. **AQUALINE: Geoff Bothamley, WRC.**

A brief history of **Aqualine** and its predecessors, **WRC Information** and **Water Pollution Abstracts** was given. Initially an internal database using the ASSASSIN software had been prepared. It was launched commercially on ESA-IRS in 1979, and on Dialog in 1980. In 1984 the records back to 1960 were added, using optical character recognition (OCR). The database was now available exclusively on Pergamon Orbit Infoline. It covered the geographic areas of inland waters, estuaries and coasts.

Other services that were available included full-text document delivery, translations into English, referral of enquiries to consultants, and information searches by staff.

#### 2.2. **Compact Disc Systems: Roy Selwyn, Microinfo.**

Microinfo started off as distributors of scientific and technical information, particularly the grey report literature. They had been interested in optical discs for some time, and now acted as UK agents for a number of compact disc manufacturers. The compact disc for use with computers had been developed from the audio compact disc, which used a laser and music in a digital form. From this it had been a short step to digitized data that could be accessed by a computer. Once the technology for use with computers had been developed, a number of firms had developed their own software, including Cambridge Scientific Abstracts, the commercial publisher of **ASFA**. The compact disc was at present a read only device, i.e. nothing could be changed on the disc once



it had been manufactured. Each disc contained 600 MB of data, the equivalent of over 200,000 pages of typescript. A read and write version was under development. Some 500 database products had been announced, and of these some 200 were serious products. Only 50 were actually available at the moment. The equipment needed was an IBM PC or equivalent, a CD-ROM card to insert in the computer, and a compact disc player.

### 2.3. ASFA Update: Allen Varley, PML.

**Aquatic Sciences and Fisheries Abstracts (ASFA)** is the international abstract journal and database produced by the cooperative effort of several UN agencies and a worldwide network of national and regional centres. The PML Library is the UK focal point. The present situation was briefly summarized. A number of new partners had joined: a new sponsoring agency, the United Nations Environment Programme (UNEP); a national input centre in China; and two regional input centres, the SouthEast Asian Fisheries Development Centre (SEAFDEC), and the International Centre for Living Aquatic Resources Management (ICLARM). An Indian area network was being established, and a number of other UN agencies had been asked to join as sponsors. Problems had been experienced in coping with the whole of the world literature, as a number of the input centres had experienced staff losses. The **Aquatic Sciences and Fisheries Thesaurus** was now in use in many countries, as was the **ASFA** subject breakdown. The **Geographic Authority List** was being updated, as was the **World List of Aquatic Sciences and Fisheries Serial Titles**. **ASFA** was now available on compact disc. CDS/ISIS was being tested for use in preparing **ASFA** input, and a number of input centres were using it for their own records.

### 2.4. Haecon Library Database Management: Andrew Beavis, Haecon.

A description was given of four programs, written in FORTRAN, to help with the routine working of a small library. **Circulation** was designed to monitor the circulation of serial titles, allowing the library to see where any issue was located. **Purchase** was a detailed system for the purchase of books, reports, maps and standards, and included full details of suppliers, the various stages in the purchase of an item, prices etc. Summaries could be produced of orders with particular suppliers, costs in different currencies etc. Quick screen searches were possible using the software DBENTRY. **Charts** was used to record the stock of charts and maps. Over 1,000 charts and maps from 90 countries were listed. These could be found through keywords of chart numbers and countries. Information on borrowers was also recorded. **Inventory** was used to record catalogue entries for books, standards, reports, journal articles etc. Information was given on the type of document, the date of acquisition, borrowers etc. It was possible to have lists for subjects, recent acquisitions, authors, and borrowers. Work had now started on a fifth database of slides and videos.

### 2.5. Computers in Libraries, a US Perspective: Bill Goff, Scripps.

A general review was given of the situation in the USA. Considerable use was made of online hosts, and of the recently available **ASFA** on compact disc. In

general no analytical cataloguing was done, and as far as possible online library catalogues tried to use already existing records. For example, there was an online catalogue for the whole of the University of California, which was based on OCLC records. The whole system had taken 10 years to plan and develop.

### **3. National, Regional and International Networks.**

#### **3.1. Introduction. ASFIS, FAO and IOC/Unesco Initiatives: Allen Varley, PML.**

Recent developments in the work of the international agencies were outlined. The developed countries were being encouraged to cooperate in initiatives in the developing countries, through the establishment of regional networks and centres, and through regional training workshops. However local problems in some developing countries were very basic, for example the difficulties in getting copies of documents to the end user, knowing what was going on locally, and disseminating local research results through reports and bulletins. However there was a general recognition of the value of information, and a desire to cooperate, to avoid duplication of effort, and to improve information exchange.

#### **3.2. The UK: John Burne, DAFS.**

A brief history of the developments in aquatic sciences in the UK was given, including the establishment of the major aquatic laboratories. The first meeting of UK aquatic librarians took place in 1969 in Plymouth. The group had met informally since then every 18 months or so, and had produced a number of publications, including the **Serial Holdings of UK Marine and Freshwater Sciences Libraries** in 1980, and two editions of a **Directory of Library and Information Facilities**. The Serial Holdings was on computer, and it was hoped that a new edition might be produced. After the expansion in the sciences in the 1970's, when there was considerable growth, especially in the environmental aspects following the Torrey Canyon disaster in 1967, there was now a period of retraction. A number of laboratories had closed, including the Unilever research laboratory, the laboratory at Taunton, the Institute of Marine Biochemistry at Aberdeen etc. Library collections were becoming weaker, and there was an increased reliance on the British Library Document Supply Centre, which now had its own financial problems. However a number of library publications had been developed, **Marine Pollution Research Titles** being one of the first. Some information bulletins produced by MAFF and DAFS for trout, salmon and shellfish farmers, and distributed without charge, might have to recover their costs. The whole ethos of the UK library world was changing, with an increasing emphasis on producing income and charging for services. But hopefully the retrenchment would come to an end, and the future would be more secure.



### 3.3. Scandinavia: Jean Collins, North Sea Centre.

Some of the developments across Scandinavia were outlined, with particular reference to Denmark. A new University of Fisheries had been established in Tromsø. There were cooperative efforts for different subject areas across Scandinavia, for example relating to the Baltic Sea. But it had to be noted that in general Nordic aquatic libraries were very small, usually with only one or two staff. In Denmark there were now physical links through an online network to the **FISHLINE** database, in which a number of fisheries libraries were cooperating. The **ASFA** classification and thesaurus had been used. The database acted as a catalogue to what was available in the libraries. The input went to a central computer. Searches could be entered in Danish or English, and access was via Datapak.

### 3.4. Portugal: Lidia Nunes, INIP.

Portugal was now celebrating five centuries of sea exploration. It had a long tradition of interest in the sea and in fisheries. As a result, many marine stations were established and, initially, they mainly carried out descriptive research related to museums. Since 1974 important changes in research structures and policies had occurred, and at present major initiatives were being taken for developing scientific and technical research. The National Council for Scientific and Technological Research had organized a technological survey in which a country profile of marine research was included. A survey of marine information facilities was carried out by INIP and IHM. These two institutes proposed to create a scientific and technical system of marine information, involving various marine research institutes and universities in different fields of marine sciences. The network was a proven approach to maximize data and resources for promoting a more rapid and pertinent dissemination of information. The Information and Documentation Division of INIP was recognized as the main documentation centre for aquatic sciences and fisheries in Portugal and the planned developments would also lead to the strengthening of its own structure.

### 3.5. France: Claude Uguen, IFREMER.

A brief historical perspective was given, starting in the seventeenth century with the Service Hydrographique and the Service Historique de la Marine. There were a large number of old collections of documents scattered around the French coast, some 40 in all. For some time a need had been felt for these centres to meet together and to discuss matters relating to exchanges, public relations, databases, and scientific information generally. Half a dozen meetings had been held, attended by some 30 people, and a working network was operational. Another aspect of the coordination of aquatic libraries was that relating to **ASFA**. IFREMER coordinated the work of seven French input centres. **ASFA** had been available online at IFREMER to users in France and elsewhere, but was temporarily unavailable. In addition to **ASFA**, online searches could be carried out in the **PASCAL** database, available through Telesystems. One other cooperative effort was in producing a multilingual encyclopaedic dictionary of the sea, which had already been described.

**3.6. International Association of Marine Science Libraries and Information Centers (IAMSILIC): Cecile Thiery, Musee Oceanographique and Bill Goff, Scripps.**

Greetings were brought from **IAMSILIC** for a successful meeting. **IAMSILIC** had started as a grouping of marine science libraries on the East coast of the United States in 1975. The terms of reference had gradually widened, and the present name was adopted in 1978. It was noted that a number of freshwater libraries were also members. There were now about 180 members in 30 countries, of whom 18 were in Europe. An international cooperation committee had been established in 1986 with the objectives of promoting international cooperation among marine science libraries and information centres, and within the marine science community. It also acted as a clearing house, and maintained a register of marine science information resources. The growth of regional groups was also being fostered. **IAMSILIC** produced a newsletter, a directory of libraries and information centres, a union list and an atlas list. There was also an electronic mail bulletin board on OMNET. An annual conference was held, with a published proceedings.

The thanks of the meeting were expressed to **IAMSILIC** for their greetings and good wishes.

**4.1. Parallel Sessions**

Participants were divided into four groups, which spent half an hour with each of the following:

**4.1.a. ASFA CD-ROM demonstration: Roy Selwyn, Microinfo.**

Demonstrations were given of two compact disc products, produced by Cambridge Scientific Abstracts, **ASFA** and the **Life Sciences Collection**. The opportunity was taken for PML staff and visitors and Plymouth Polytechnic library staff also to see the demonstrations.

**4.1.b. PML Microcomputer Demonstration: David Moulder, PML.**

A number of software programs were demonstrated, including HEADLINE for electronic mail, INMAGIC for staff publications and address labels, and CDS/ISIS for a number of bibliographic databases.

**4.1.c. A European Network?: Allen Varley, PML.**

A general discussion was held on the suggested formation of a European network of aquatic libraries, and the format and terms of reference that might be adopted.



#### **4.1.d. The MBA Library and Aquarium: Susan Boxall, PML.**

Each group was briefly shown round the library, with an explanation of its information activities and the unique classification system. The aquarium, which contained a collection of local species, was enjoyed by all.

#### **4.2. Panel Discussion on User Needs, and How to Identify Them: Derek Bate, MAFF, Pauline Simpson, IOS and Bill Goff, Scripps.**

Scripps had undertaken a survey of user needs in 1984. Traditional services had been listed, and users had been asked to give their views on priorities. Online searching was the major priority, with a request for remote access to the library in the future. Document delivery was not a priority. The Institut Oceanographique in Paris had a user group, which advised on which books they would like to see obtained; Scripps had a library committee; the Finnish had an advisory group; MAFF preferred the informal approach. IOS had undertaken a survey of users to identify journal priorities for cancellation. FBA had done the same, and included some titles which they did not take! Users said that some of these were of great importance. It was noted that libraries received feedback all the time, through the level of use of services, the size of the budget etc.

#### **4.3. Towards a European Network: Reports from Task Teams: Allen Varley, PML.**

Allen Varley summarised the discussions and findings of the four groups. A remarkable feature had been the similarity of opinions, conclusions and recommendations of each of the separate groups. The four task teams considered existing links in their own countries, in Europe, and internationally, and members were unanimous in recommending that the momentum and enthusiasm generated by the Plymouth meeting should be maintained through the formation of a European network and association of marine and freshwater sciences librarians, information scientists and documentalists. The main functions would be to develop links, exchange ideas, provide mutual support, and to collaborate in joint projects. Membership would be open to all involved in marine and freshwater library and information work. There was some discussion about the geographic definition of "Europe" but the majority felt that the boundaries should be as wide as possible within the meaning of the term.

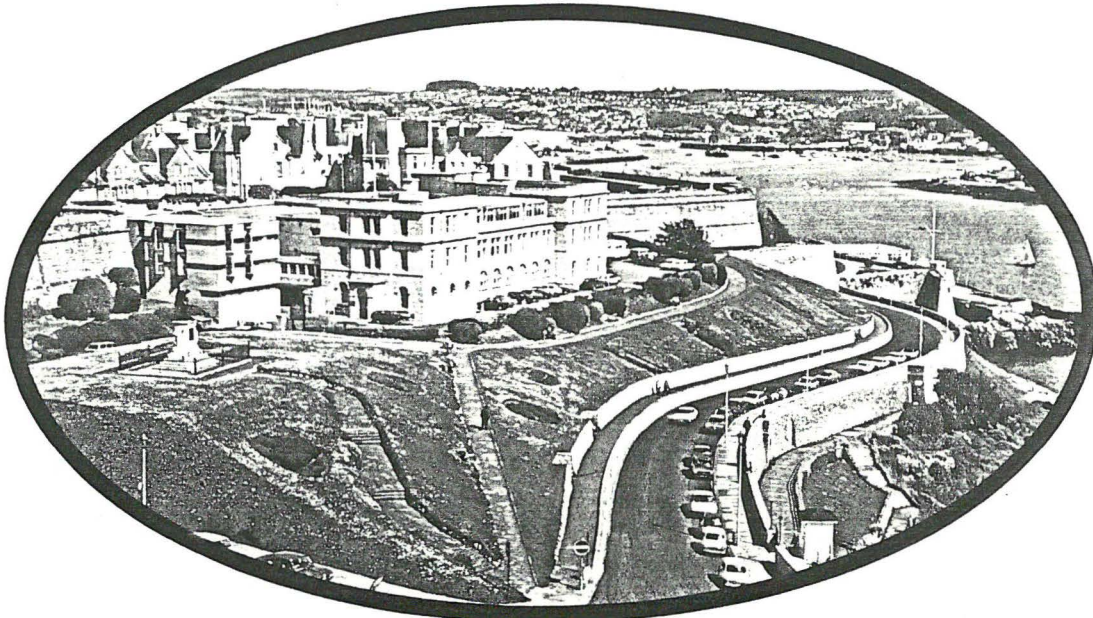
A European group or association would in some respects resemble **IAMSLIC**, but it would include freshwater interests and would encourage the participation of any appropriate person or institute without the constraints of membership fees. Although the group would work closely with **IAMSLIC** (and three members recommended total integration) the majority felt strongly that a European identity should be maintained, and an informal working network should be the primary aim. This could be achieved by building on existing national networks, by encouraging countries without such networks to develop them, and to integrate all into a European group.

The first steps would be to identify networks, institutions and individuals throughout Europe who might usefully participate. The members present agreed

to compile lists of relevant institutions and individuals in their own and neighbouring countries, and to forward these to David Moulder in Plymouth by the end of June. Ian Pettman agreed to coordinate moves to widen freshwater involvement in the group. A draft report of the meeting would be prepared and circulated to all members present. After being amended as appropriate the report would be used as the first issue of a newsletter which would be distributed to all the European addressees identified. Recipients would be asked for comments and feedback, and for their help in compiling a directory of European marine and freshwater information resources. During the next year the members present would act as focal points, reporters and "missionaries" in their own countries in order to generate and maintain interest. Several members offered to host the next "European" meeting.

#### **4.4. Closure of the Meeting.**

Allen Varley thanked everyone for their contribution to the success of the meeting. Mike Rolfe thanked PML for their hospitality, and the organizers for all their efforts. On behalf of the participants, Ian Pettman presented the ladies from the library with some flowers and chocolates, and thanked them for doing so much behind the scenes to make the meeting a success.





## PARTICIPANTS

Sheila M. Adair,  
Librarian,  
Institute for Terrestrial Ecology, Edinburgh Research Station,  
Bush Estate,  
Penicuik,  
Midlothian EH26 0QB,  
Scotland, UK.

Derek Bate,  
Librarian,  
Ministry of Agriculture, Fisheries and Food,  
Fisheries Laboratory,  
Pakefield Road,  
Lowestoft,  
Suffolk NR33 0HT,  
England, UK.

Andrew Beavis,  
Technical Librarian,  
Haecon N.V., Harbour and Engineering Consultants,  
Deinsesteenweg 110,  
B-9810 Gent,  
Belgium.

Geoff Bothamley,  
Water Research Centre,  
Elder Way,  
Stevenage SG1 1TH,  
England, UK.

Susan J. Boxall,  
Information Scientist, Library,  
Plymouth Marine Laboratory,  
Library and Information Services, Citadel Hill,  
Plymouth PL1 2PB,  
Devon,  
England, UK.

John Burne,  
Chief Librarian,  
Department of Agriculture and Fisheries for Scotland Marine  
Laboratory,  
P.O. Box 101, Victoria Road, Torry,  
Aberdeen AB9 8DB,  
Scotland, UK.

Jacqueline Carpine-Lancre,  
Head Librarian,  
Bibliothèque, Musée océanographique,  
Avenue Saint-Martin,  
Monaco-Ville,  
MC 98000 Monaco.

Alison Charles,  
Aberconway Library,  
University of Wales Institute of Science and Technology (UWIST),  
Colum Drive,  
Cardiff CF1 3EU,  
Wales, UK.

Jean Collins,  
North Sea Centre Library,  
P.O. Box 93,  
9850 Hirtshals,  
Denmark.

Mary Delahaye,  
Head Librarian,  
Institut oceanographique,  
195 rue Saint-Jacques,  
75005 Paris,  
France.

Norma Ellis,  
Librarian,  
ICI Laboratory,  
Freshwater Quarry,  
Brixham,  
Devon TQ5 8BA,  
England, UK.

William G. Goff,  
Head Librarian,  
Scripps Institution of Oceanography,  
Library C-075C, University of California, San Diego,  
La Jolla,  
California 92093,  
United States of America.

Marianne G. Harvey,  
Librarian,  
International Maritime Organization,  
4 Albert Embankment,  
London SE1 7SR,  
England, UK.

Marjatta Heinanen,  
Librarian,  
Finnish Institute of Marine Research,  
P.O. Box 33,  
SF-00931 Helsinki,  
Finland.

Denise-Helene Hugol,  
Documentalist,  
C.N.R.S. GRECO 68 "Ecoprophyce", Institut oceanographique,  
195 rue Saint-Jacques,  
75005 Paris,  
France.



Helen Johnson,  
Assistant Librarian,  
Ministry of Agriculture, Fisheries and Food,  
Fisheries Laboratory,  
Pakefield Road,  
Lowestoft,  
Suffolk NR33 0HT,  
England, UK.

Katherine D. Jones,  
Librarian,  
Proudman Oceanographic Laboratory,  
Bidston Observatory,  
Birkenhead,  
Merseyside L43 7RA,  
England, UK.

Anne McConville,  
Librarian,  
Department of Agriculture and Fisheries for Scotland Freshwater  
Fisheries Laboratory,  
Faskally,  
Pitlochry,  
Perthshire PH16 5LB,  
Scotland, UK.

Nicole Momzikoff,  
Librarian,  
Institut oceanographique,  
195 rue Saint-Jacques,  
75005 Paris,  
France.

Mary Moore,  
Librarian,  
Department of Fisheries, Fisheries Research Centre,  
Abbotstown,  
Castleknock,  
Co. Dublin,  
Eire.

David S. Moulder,  
Head of Marine Pollution Information Centre and Deputy  
Librarian,  
Plymouth Marine Laboratory,  
Library and Information Services, Citadel Hill,  
Plymouth PL1 2PB,  
Devon,  
England, UK.

Linda Noble,  
Information Scientist, Library,  
Plymouth Marine Laboratory,  
Library and Information Services, Citadel Hill,  
Plymouth PL1 2PB,  
Devon,  
England, UK.

Lidia de Paiva Nunes,  
Head of Division,  
Instituto Nacional de Investigacao das Pescas, Divisao de  
Informacao e Documentacao,  
Av. de Brasilia,  
1400 Lisbon,  
Portugal.

Ian Pettman,  
Chief Librarian,  
Freshwater Biological Association,  
The Ferry House,  
Ambleside,  
Cumbria LA22 0LP,  
England, UK.

Sandra Robinson,  
Assistant Librarian,  
Plymouth Marine Laboratory,  
Library and Information Services, West Hoe,  
Prospect Place,  
Plymouth PL1 3DH,  
Devon,  
England, UK.

Michael Rolfe,  
Information Officer,  
Ministry of Agriculture, Fisheries and Food,  
Fisheries Laboratory,  
Pakefield Road,  
Lowestoft,  
Suffolk NR33 0HT,  
England, UK.

Paul Rolfe,  
University College North Wales,  
Library,  
Bangor,  
Gwynedd LL57 2DG,  
Wales, UK.

Sylvia Russell,  
Assistant Librarian,  
Plymouth Marine Laboratory,  
Library and Information Services, Citadel Hill,  
Plymouth PL1 2PB,  
Devon,  
England, UK.

Roy B. Selwyn,  
Director,  
Microinfo Ltd,  
P.O. Box 3, Omega Park,  
Alton,  
Hampshire GU34 2PG,  
England, UK.

Pauline Simpson,  
Librarian,  
Institute of Oceanographic Sciences, Deacon Laboratory,  
Brook Road, Wormley,  
Godalming,  
Surrey GU8 5UB,  
England, UK.

Maria Helena M. Tavares,  
Documentation Officer,  
Instituto Hidrografico Marinha,  
Rua das Trinas, 49,  
P-1296 Lisbon,  
Portugal.

Cecile Thiery,  
Librarian,  
Bibliotheque, Musee oceanographique,  
Avenue Saint-Martin,  
Monaco-Ville,  
MC 98000 Monaco.

Claude Uguen,  
Librarian,  
Institut francais de Recherche pour l'Exploitation de la Mer  
(IFREMER), Service de la Documentation et des Publications,  
B.P. 70, 29262 Plouzane,  
Brest,  
France.

Allen Varley,  
Head of Library and Information Services,  
Plymouth Marine Laboratory,  
Library and Information Services, Citadel Hill,  
Plymouth PL1 2PB,  
Devon,  
England, UK.

Susan Wharton,  
Librarian,  
Institute of Hydrology,  
Maclean Building, Crowmarsh Gifford,  
Wallingford,  
Oxfordshire OX10 8BB,  
England, UK.

Doreen Willis,  
ICI Laboratory,  
Freshwater Quarry,  
Brixham,  
Devon, TQ5 8BA,  
England, UK.

