

THE SWIRE INSTITUTE OF MARINE SCIENCE ANNUAL REPORT FOR 1995



Professor Qu Geping, Sir John Swire and Professor Wang Gungwu re-open the Swire Institute of Marine Science on the 10 November 1994



The University of Hong Kong

The Swire Institute of Marine Science Annual Report for 1995



The Swire Institute of Marine Science
Photo: G.A. Williams

The Institute was officially opened on the 3 November 1990 as The Swire Marine Laboratory and renamed The Swire Institute of Marine Science with effect from the 1 July 1994. It has now completed its fifth year of research activity and development.

This Annual Report covers the period from 3 November 1994 to 2 November 1995.

Enquiries about the facilities and activities of the institute should be addressed to:

The Director,
The Swire Institute of Marine Science,
The University of Hong Kong,
Cape d'Aguilar, Shek O,
Hong Kong.
Tel. (852) 28092179
Fax (852) 28092197
E-mail: SWIREML@HKUCC.HKU.HK

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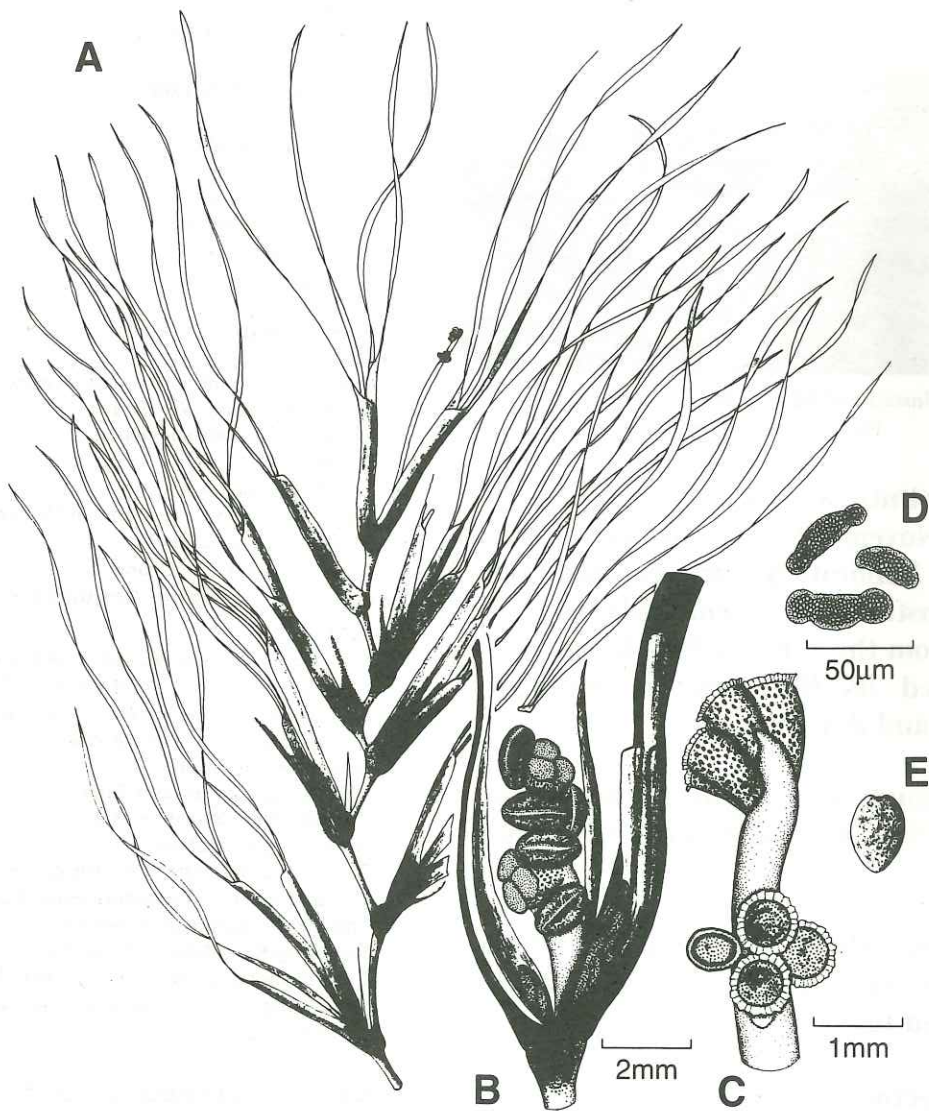
- Fourth International Workshop on the Marine Flora and Fauna of Hong Kong and southern China
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How can I undertake research at The Swire Institute of Marine Science?

Publications by Staff and Students (1994-1995)

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Acknowledgements



Ruppia maritima: A, whole plant; B, male flower; C, female flower; D, pollen grains; E, drupelet.

THE INSTITUTE

The Swire Institute of Marine Science is a facility of the University of Hong Kong and was built, initially, with a grant of HK\$12.5 million from The Swire Group of Companies. The laboratory was officially opened as The Swire Marine Laboratory on the 3 November 1990 by Sir John Swire CBE. With effect from the 1 July 1994, the Council of The University of Hong Kong agreed to the laboratory becoming an independent facility of the University of Hong Kong and to the establishment of a new name - The Swire Institute of Marine Science - in recognition of the laboratory's growing importance as an international centre for advanced marine research. The institute was officially re-opened and re-named on the 10 November 1994 by Professor Qu Geping, Chairman of the Environmental Resources Protection Committee of the National Peoples' Congress, China; Sir John Swire CBE, Honorary President of John Swire & Sons Ltd. and Professor Wang Gungwu, Vice-Chancellor of the University of Hong Kong.

Located on the tip of the Cape d'Aguiar Peninsula, Hong Kong Island, the institute allows easy access to a wide range of shore types experiencing various degrees of exposure to wave action. The surrounding waters are probably the cleanest in Hong Kong and the shores are geologically interesting and biologically diverse. The shores and 18 hectares of sea around the institute are proposed to be Hong Kong's first marine reserve.

The institute provides research accommodation and equipment for a wide range of both laboratory and field oriented studies and is the most modern and best equipped marine facility in Hong Kong.

Visitors to the institute can stay in comfortably furnished rooms at the Residence. Capable of accommodating up to twenty four people in either single, double, or bunk rooms, the Residence also has a lounge/dining room, kitchen, sun balcony and spectacular views to the east and south. A second Residence, adjacent to the original one, and capable of housing up to ten more students and guests, was completed in November 1994.

The institute has two vehicles, a five seater

field truck and a seven seater van. There is also a ten man "Zodiac" inflatable, a dinghy and a newly acquired, custom-designed, 8 m Boston whaler.

STAFF

The staff of the laboratory are:
Professor Brian Morton, Director
Dr. S.Y. Lee, Resident Scientist
Dr. Gray A. Williams, Resident Scientist
Dr. Yvonne Sadovy, Resident Scientist
Ms. Diana K.F. Ip, Senior Secretary
Mr. James C.T. Hui, Senior Technician
Mr. Albert C.C. Au, Technician
Ms. Kelly L.Y. Lau, Technician
Mr. Cheung Ming, Driver/Boatman
Mr. Patrick P.C. Chan, Leading Artisan
Mr. Anthony S.K. Ching, Laboratory Assistant
Ms. Priscilla S.H. Fung, Clerical Assistant
Mr. K.K. Wong, Artisan/Caretaker
Ms. K.P. Chan, Cleaner/Caretaker
Ms. Tracy Clark, Postgraduate Resident Tutor

COMMITTEE OF MANAGEMENT

The Swire Marine Laboratory became an independent facility of the University of Hong Kong and was re-named The Swire Institute



Members of the Committee of Management at its first meeting. From left to right: Mr. J.W. Bradford, Prof. B. Morton, Mr. C.J. Pooley, Dr. I.J. Hodgkiss, Ms. J. Chung (Secretary), Prof. P.R. Hills (Chairman), Dr. S.Y. Lee.

of Marine Science with effect from 1 July 1995. At that time too, a Committee of Management was established under the chairmanship of Prof. P.R. Hills, Centre for Urban Planning and Environmental Management, The University of Hong Kong with the following terms of reference.

1. To advise the Senate on all matters relating to the Swire Institute of Marine Science.
2. To report annually to the Senate on the activities of the institute.
3. To determine and keep under review the programme and activities of the institute.
4. To advise the Senate and the Vice-Chancellor on any matters which they may refer to it.
5. To determine the budget of the institute within the funds available.
6. To approve for submission to the Senate and Council any triennial proposals for the development of the institute.
7. To appoint Institute Fellows.
8. To approve visiting research appointments in the institute, other than those a professorial level.
9. To approve amendments to regulations for research funds, fellowships, conference grants and other awards for staff and postgraduate students which are wholly based in the institute.
10. To form sub-committees to which outside members may be appointed.

The following are members of the Committee of Management:

Prof. T.M. Wong, Dean of the Faculty of Science, Open Learning Institute of Hong Kong.

Dr. R. Jack, Corporate Environment Manager, China Light & Power Co., Ltd..

Dr. L.H.Y. Lee, Director of the Agriculture & Fisheries Department, Hong Kong Government.

Mr. M.J. Spurling, Appleby, Spurling & Kempe, Bermuda Barristers & Attorneys, Hong Kong.

Mr. C.J. Pooley, John Swire & Sons (HK) Ltd..

Dr. S.Y. Lee, The Swire Institute of Marine Science, The University of Hong Kong.

Mr. J.W. Bradford, Department of Architecture, The University of Hong Kong.

Dr. I.J. Hodgkiss, Department of Ecology and Biodiversity, The University of Hong Kong.

Prof. P.R. Hills, Chairman of the Committee of Management.

Prof. B. Morton, Director, The Swire Institute of Marine Science.

Ms. Judy Chung, Secretary, The Registry, The University of Hong Kong.

Since its establishment, the Committee has met twice on the 15 February 1995 and 3 November 1995.

At that time too, a Staff/Student Consultative Committee was established under the chairmanship of Ms. Tracy Clark (Commonwealth Scholar), the Postgraduate Resident Tutor, and which now co-ordinates student matters and reports to and interacts with the Staff Committee and the Committee of Management.

RESEARCH PROFILE

In its fifth year of operation, the institute solved many of its earliest teething problems although 1994 was a problem year in that during this time, the laboratory was expanded to approximately double its original size and a new Residence built. This involved considerable disruption to research even after its re-opening in November 1994. The ability of its resident staff and students to do research has, however, grown commensurate with the opening of new staff and postdoctoral/visitor offices, a staff research room, a reference collection of local marine flora and fauna, an image analysis laboratory, and an analytical laboratory. The staff of the institute look forward to 1996 with increasing confidence.

The ecological research begun in 1991 of the surrounding shores will continue, largely under the supervision of Dr. G.A. Williams. Mr. Sven Kaehler is completing a study of

intertidal algae, Ms. Kate Harper is completing a study of the chiton *Acanthopleura japonica* while Mr. Robin Kennish (co-supervised with Dr. S.Y. Lee) and Mr. Mak Yiu Ming are studying rocky intertidal crabs and littorine snails, respectively. Two new students, Ms. S.M. Anderson and Mr. Charles S.C. Lee, have begun studies of grazing on the shores of Cape d'Aguiar.



Dr. G.A. Williams researches herbivory on intertidal ecology at Cape d'Aguiar.

Additional emphasis is now, however, being placed on the subtidal, in particular the corals that grow in Lobster Bay adjoining the institute and rock pools. In 1994, Mr. Albert W.Y. Leung completed his study of the fishes of Lobster Bay. Ms. Susan Hawkins is completing a study of the productivity of Lobster Bay while Ms. Tracy Clark (a Commonwealth Scholar) is studying the corals of Lobster Bay and the pool, under the supervision of Prof. B. Morton. A new student, Ms. Denise McCorry, has been appointed to study the overall biodiversity of Hong Kong's corals and Ms. Clare-Louise Nightingale (China Light and Power Scholar) has commenced research on the Chinese Horseshoe crab, both under the supervision of Prof. B. Morton. Ms. Alice L.C. Chan completed a study of the zooplankton of Hong Kong's southern waters in 1995, while Dr. R.G. Ong-Che (Research Fellow) is completing studies of the subtidal benthos of Tai Tam Bay.

Prof. B. Morton and his students also work at Hoi Ha Wan, proposed as Hong Kong's first marine park. Mr. Peter R.J. Collinson is completing a study of the growth and reproduction of corals at Hoi Ha while Mr. Albert W.Y. Leung, Mr. K.F. Leung and Ms. Katherine K.Y. Lam are studying the ecology of an experimental artificial reef, also at Hoi Ha.

Dr. S.Y. Lee and his students continue to work on various aspects of mangrove ecology at the Mai Po Marshes Nature Reserve. Ms. Winnie P.W. Kwok completed a study of herbivorous crabs in 1995, Ms. Josephine K.Y. Yang (co-supervised with Dr. Williams) is completing a study of mudskipper ecology and Mr. Steve McChesney is completing a study of the mudflat community at Mai Po. Ms. Pauline Tong studies herbivory upon local mangroves. Ms. W.C. Sze works on the impact of chronic copper exposure upon the integrated physiology of the local mussels *Perna viridis* and *Septifer virgatus*. Mr. Vincent C.S. Lai is studying the predatory crab, *Thalamita*, on various shores in Hong Kong and Mr. Terence Fong is studying the ecology of the seagrass *Zostera japonica*, both under the supervision of Dr. S.Y. Lee.



Ms. C.L. Nightingale (China Light & Power Scholar) studies the Chinese horseshoe crab.

Dr. Y. Sadovy is supervising two new students, Mr. Andrew Cornish and Mr. Ng Wai Chuen, to study the biodiversity of Hong Kong's coral reef fishes and the local rockfish *Sebasticus marmoratus*, respectively.

Prof. B. Morton and Dr. S.Y. Lee also supervise Mr. Alan W.L. Chan with his study of industrial pollutant effects on marine life, while Ms. Chan King, under the supervision of Prof. B. Morton, is studying the effects of pollutants, including TBT, on the intertidal snail *Nassarius festivus*.

Ms. Julia Shaw, supervised by Dr. R.C. Corlett of the Department of Ecology and Biodiversity of the University of Hong Kong,

is studying local sedges and rushes, including coastal species.

The sea and shores around the institute were designated a Site of Special Scientific Interest in 1991. It is anticipated that they will achieve Marine Reserve status towards the end of 1995, limiting access to Lobster Bay, thereby minimizing disturbance and further allowing us to better understand natural versus unnatural changes in water quality and shore ecology. An important step towards this objective was taken on the 31 May 1995 when Hong Kong's Legislative Council passed the Marine Parks Bill. Designation of the shores and coastal waters around the institute as a marine reserve is proceeding.

Two students, Mr. E.C.M. Parsons and Ms. Lindsay J. Porter are studying the Chinese white dolphin, *Sousa chinensis*, in the northwestern waters of Hong Kong, under the supervision of Prof. B. Morton. These studies are being financed by a grant from The Hong Kong Government.

A third Swire Scholarship in Wetland Ecology was established in 1994 and its holder, Ms. Winnie S.M. Tang, commenced work on a marine coastal GIS database for Hong Kong in which the marine flora and fauna is to be inventoried with the ultimate aim of producing a marine management plan and better maps and other visual aids to interpret Hong Kong's coastal communities. This project is locally unique in that it is being supervised by Prof. B. Morton (Science) and Mr. J.W. Bradford (Architecture).



The Director, Ms. S.M. Tang, Mr. Wong (Caltex Oil Ltd.) and the Vice-Chancellor of the University of Hong Kong, Prof. Wang Gungwu with the computer equipment donated by Caltex for the GIS database research.

NEW DEVELOPMENTS

Over the last year the institute completed Phase II of expansion and re-development. This was achieved by the donation of HK\$6

million to the University of Hong Kong from the Swire Group Charitable Trust. The institute was officially re-named with effect from the 1 July 1994 and re-opened with effect from the 10 November 1994.

Equipment ordered recently includes an Image Analysis System for a new Leitz microscope and a Scanning Electron Microscope. This equipment is now installed in a special Microscopy Laboratory.

Similarly, an Inductively-coupled Plasma Atomic Emission Spectrophotometer for trace metal analysis has been installed in a new Analytical Laboratory and facilities for the Gas Chromatography analysis of organic pollutants also established.

Work proceeds to catalogue and computerize the infant Reference Collection of Hong Kong's Marine Flora and Fauna. With the establishment of the Reference Collection, all workers at the institute will be required to lodge voucher specimens in it to ensure conformity of identification and to build up our knowledge of the local marine flora and fauna.

During May 1995, a team of marine Gurkha engineers broke up subtidal boulders at the approach to the boat ramp of the Institute to facilitate launching of the new 8 m Boston whaler, custom-designed for diving, water sampling and trawling. The ramp, however, remains in a very poor state and funds to upgrade it have recently been provided by the University and to build a platform for new outdoor fish tanks. Finally, more effective filtration of the seawater entering the aquarium has been achieved by the purchase and installation of filters.

FUTURE PLANS

During 1996, the staff will consolidate the recent structural and infrastructural developments at the institute so that its, now, diversifying activities and growing facilities are integrated into a research strategy that reflects the future needs of Hong Kong in the field of marine research. 1996 will also be the year that legislative control of the proposed marine reserve will, hopefully, come into effect and efforts will have to be directed by the Country and Marine Parks Board of the Hong Kong Government towards its management, in co-operation with the staff of the institute.

Preliminary plans are being formulated for 1996 that propose the building of a Marine Conservation and Education Centre adjacent to the institute. Allocation of a grant of HK\$200,000 from the University of Hong Kong has allowed design work to begin. The Centre will serve as a public and school facility to allow us to offer a marine educational programme to groups of local people which already visit the institute and the many more who would like to. Such a centre would also act as a Management Office for the proposed marine reserve and accommodate the growing library and reference collection, allowing wider public use and releasing space within the institute itself for further research developments.



The cliffs of Kau Pei Chau in the proposed Cape d'Aguilar Marine Reserve.

There is, in addition to the need for improvements to the ramp to allow more effective use of the new Boston whaler, an urgent need for expansion of the external seawater tank system to accommodate the increasing research interest on local fishes. The internal aquarium system will also be improved for experimental use.

THE LIBRARY

The Library Committee of the University of Hong Kong made allocations to the institute of HK\$15,000 and HK\$40,000 in 1991/1992 and 1992/1993, respectively. In 1993/1994, this allocation increased to HK\$50,000, to allow continued purchase of research books. However, from July 1995, because the institute became independent of the Faculty of Science, allocations for book purchases are now sought directly from the Library Committee, along with other non-faculty units. The institute is still, however, far from fulfilling a basic aim of providing a comprehensive marine library for staff, students and visitors.

Upon his retirement from the Chair of Zoology at The University of Hong Kong in 1990, Professor B. Lofts generously donated runs of a number of important journals to the institute. In 1993, the widow of the late Professor R.D. Purchon also donated part of her husband's library to the institute. In 1995, Professor T.J. Biscoe (Deputy Vice-Chancellor) generously donated his collection of the *Journal of Physiology* to the institute. This important journal will be invaluable for the research of the institute. We also benefit from lodgement at the institute of the library of The Marine Biological Association of Hong Kong which has been built up through exchange of its journal *Asian Marine Biology*. We now shelve 217 titles through this exchange and have back runs of most Chinese marine journals.

HEALTH AND SAFETY

The institute has a comprehensive Health and Safety Policy which is spelt out clearly in a Health and Safety Manual issued to everyone working at the institute. The Manual is at present being redrafted to keep pace with the provision of new equipment, chemicals and boat and diving facilities. Mr. P.P.C. Chan is the First Aid Officer and Mr. J.C.T. Hui is the institute's Safety Representative.

EVENTS

5 November 1994

Sixty-five members of the Royal Asiatic Society Hong Kong Branch: to tour the institute and have a seminar.

12 November 1994

Thirty-six staff and students from the institute and The Marine Biological Association of Hong Kong: to attend a symposium on researches currently being conducted within the proposed Cape d'Aguilar Marine Reserve.

19 November 1994

Thirty staff and students from the M.Sc. Environmental Management degree, The University of Hong Kong: to attend a seminar.

26-27 November 1994

Six members of the British Sub Aqua Club Hong Kong: to conduct an underwater photography training course.

14 and 27 February 1995

Eight members of staff of the Agriculture and Fisheries Department of the Hong Kong Government: to conduct fishing surveys around Cape d'Aguilar.

18 and 25 February and 4 March 1995

Eight undergraduates from the Geography Department of The Chinese University of Hong Kong: to undertake field work on coastal features of the Cape d'Aguilar peninsula.

23 February 1995

Twenty-eight Environmental Science students, The University of Hong Kong: to have a seminar, tour the institute and clean up the beach.

25 February 1995

Prof. F.C.S. Ho, staff and twelve postgraduates and staff of the Department of Pathology, Department of Microbiology and Department of Zoology, The University of Hong Kong: to tour the institute and hold a research meeting.



Staff and students of the Coastal Ecology course.

March 13-17 1995

Five students from Li Po Chun United World College of Hong Kong: to undertake project activities organized by Dr. G.A. Williams.

10 April 1995

Sixty-eight students from the B.Sc. Coastal Ecology Course, Department of Ecology and Biodiversity, The University of Hong Kong: to attend project seminars.

29 April 1995

Twenty-five students and staff from South Island School: to attend a seminar and tour the institute.

20-21 May 1995

Twelve people from the British Sub Aqua Club Hong Kong: to attend an underwater photographic training course.

27 June 1995

Four teachers and one hundred and twenty-one students from Diocesan Girls' School: to undertake field work on coastal features of the Cape d'Aguilar peninsula, tour the institute and have a beach clean up.

28 June 1995

Centre for Media Resources, The University of Hong Kong: to shoot a video on postgraduate research at the institute.

13 July 1995

Mr. P. Kirk, Geotechnical Engineering Office of the Civil Engineering Department, Hong Kong Government, and thirty students from Buddhist Tai Kwong Middle School: to have a tour of the coastal features of the Cape d'Aguilar peninsula.

18 July 1995

Twenty-five staff and students from S.K.H. Calvary Church Social Service Centre: to tour the institute and clean up the beach.

29 August 1995

Ten students from Baptist Oi Kwan Social Service: to tour the institute and clean up the beach.

4 November 1995

Twenty students from the Biology Society of the University of Hong Kong: to tour the institute and clean up the beach.



Rubbish collected from the beach at Cape d'Aguilar by the Environmental Science students.

OFFICIAL VISITORS

17 October 1984
 Dr. J. H. Brown, Director of the
 Department of Zoology and
 Entomology, University of
 California, Davis, and staff of the
 Hong Kong Museum, at the
 Lighthouse.

4 November 1984
 Mr. K. H. Chan, Director of
 the Department of Zoology and
 Entomology, University of
 Hong Kong, at the Lighthouse
 Lighthouse.

12 November 1984
 Mr. J. H. Brown, Director of
 the Department of Zoology and
 Entomology, University of
 California, Davis, at the
 Lighthouse.

14 November 1984
 Mr. F. C. S. Ho, Director of
 the Department of Zoology and
 Entomology, The University of
 Hong Kong, at the Lighthouse.



Members of the Royal Asiatic Society at the Cape d'Aguilar Lighthouse, the oldest in Hong Kong.

OFFICIAL VISITORS

31 October 1994

Seven members of the Institute of Vertebrate Paleontology and Paleoanthropology, Academia Sinica, China, and staff of the Hong Kong Museum of History: to visit the institute.

4 November 1994

Prof. K. Bancroft, Dean of Science, Plymouth University: to visit the institute and have discussions on the possibilities for research collaboration.

11 November 1994

Mr. Zheng Yaohua, Deputy Director of the Chinese Academy of Science, Wuhan Branch: to visit the institute.

24 November 1994

Prof. F.C.S. Ho, Head of the Department of Pathology, The University of Hong Kong: to visit the institute.

24 November 1994

Mr. M. Pitts, wildlife photographer, and Mr. R. Brock, film producer: to tour the institute and discuss filming of a wildlife documentary on Trigger fish.

23 January 1995

Prof. M. Depledge, Department of Biological Sciences, University of Plymouth, U.K., Dr. D. Nugegoda, Department of Environmental Management, Victoria University of Technology, Australia, Dr. C. Ibe, Intergovernmental Oceanographic Commission (IOC), UNESCO, France, and Dr. A. Kohler, Biologische Anstalt Helgoland, Germany: to visit the institute and have discussions.

24 January 1995

Mr. & Mrs. C. Ryder, John Swire & Sons Ltd., U.K.: to visit the institute and have discussions.

26 January 1995

Dr. D. Connell, Faculty of Environmental Sciences, Griffith University, Australia, Dr. A. Jones, Department of Earth and Environmental Sciences, Australian Museum, Australia, Dr. R.D. Simpson, Department of Zoology, University of New England, Australia, Dr. T.J. Ward, CSIRO Division of Fisheries, Australia, Dr. A.H. Knap, Bermuda Biological Station for Research, Inc., Bermuda, Dr. A. Ismail, Department of Biology,

Universiti Pertanian Malaysia, Malaysia, Dr. M.G. Nipper, NIWA-Ecosystems, New Zealand, Dr. D.J.H. Phillips, U.K., Dr. C. Sheppard, Department of Biology, University of Warwick, U.K. and Dr. S.E. Apitz, Remediation Research Laboratory, San Diego, U.S.A.: to tour the institute.

28 January 1995

Dr. D. Morrissey, NIWA, Hamilton, New Zealand: to visit the institute.

17 February 1995

Mr. H.W. Young, Mr. H.Y. Wong, Mr. S.C. Man and Dr. K.C. Lam of the Environmental Affairs Panel of Legco and three staff members from the Legco office, Ms. M. Siu from the Planning, Environment and Lands Branch, Mr. S.P. Lau, Mr. M.K. Cheung and Mr. Edward C.K. Wong from the Agriculture & Fisheries Department: to have a discussion on the importance of Cape D'Aguilar and the institute's work and the proposed marine reserve and to tour the proposed area.

23 February 1995

Mr. P. Whiteside and Mr. N. Evans of the Civil Engineering Department of the Hong Kong Government: to have a discussion on dredging areas around Cape d'Aguilar.

21 March 1995

Mr. Bowen P.W. Leung, Secretary Designate, Environment, Planning and Lands Branch, and Dr. L.H.Y. Lee, Director of the Agriculture and Fisheries Department of the Hong Kong Government: to visit the institute and have discussions on the proposed marine reserve.

22 March 1995

Ten participants in the 4th Teacom Meeting of the City University of Hong Kong: to visit the institute.

24 March 1995

Mr. A. G. Cooper, Deputy Secretary (Environment), Planning, Environment and Lands Branch, Government Secretariat: to visit the institute and have discussions on the proposed marine reserve.

10 April 1995

Dr. V. Gerdol and Dr. C. Gallimore from Li Po Chun United World College of Hong Kong: to have a discussion on the feasibility of their students co-working with our students during diving surveys.

15 May 1995

Dr. W.W.S. Yim, Earth Science Unit, The University of Hong Kong and Professor Wang Pinxian, Department of Marine Geology,

Tongji University, Shanghai, China: to visit the institute.

13 June 1995

Prof. T. Biscoe, Deputy Vice-Chancellor, The University of Hong Kong, Dr. Ian Smith and Mrs. G. Parata, University of Otago, Dunedin, New Zealand: to visit the institute and initiate discussions on future collaboration.



Prof. T.J. Biscoe, Deputy Vice-Chancellor, The University of Hong Kong, Ms. G. Parata, Head of the International Office and Dr. I. Smith, Deputy Vice-Chancellor, University of Otago, discuss the possibilities for collaborative research with the Director of the Swire Institute of Marine Science.

28 June 1995

Dr. K.M. Cheng and 11 senior academic staff members of the departments within the Faculty of Education: to have a Faculty meeting at the institute.

11 July 1995

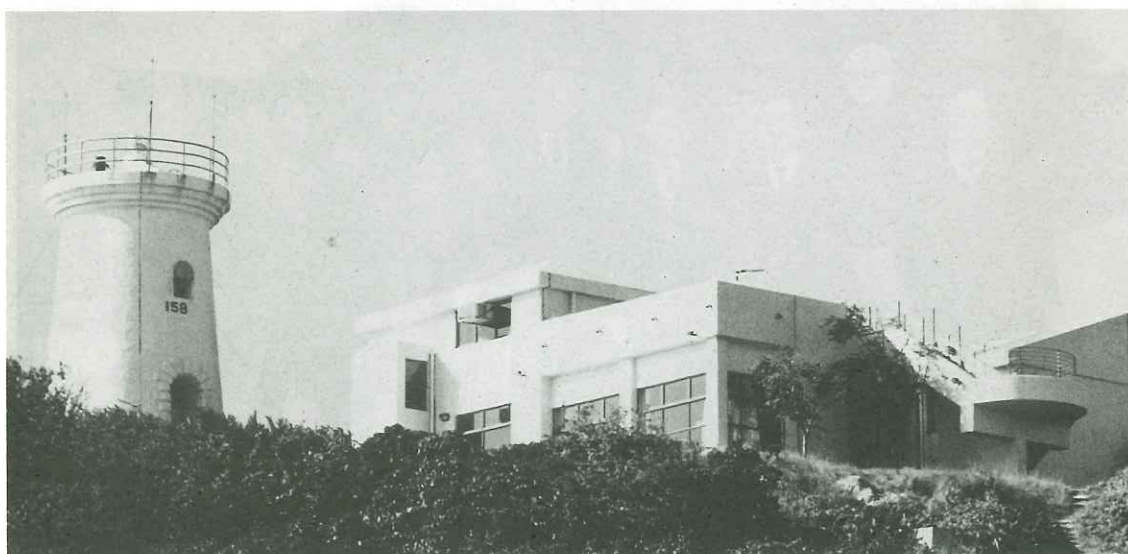
Prof. S.G. Redding, University of Hong Kong Business School, The University of Hong Kong, together with eight scholars from universities in the USA and Canada: to hold a workshop entitled "Canadian Business Strategy in the Asia Pacific region" at the Residence.

2 October 1995

Dr. R.F. Uglow, Senior Admissions Tutor, The University of Hull, U.K.: to have a discussion with Dr. G.A. Williams and to tour the institute.

30 October 1995

Dr. Dannie Hensley, University of Puerto Rico: to visit the institute and advise on museum curation.



The Residence of the Swire Institute of Marine Science.

Photo: E. Stokes



Members of the Legco Environmental Affairs Panel, staff of the Legco Office, staff of the Planning, Environment and Lands Branch, staff of the Agriculture & Fisheries Department and staff of the Swire Institute of Marine Science after their meeting on the 17 February 1995.

RESEARCH VISITORS

4 November 1994 - 3 November 1995

Ms. R. Cumming, James Cook University, Australia, has been provided with facilities at the institute to complete the writing of her Ph.D. thesis.

12 December 1994

Mr. Thomas V. Prevenslik from the Department of Chemistry, The University of Hong Kong: to conduct some ultrasound induced and UV tests on *E.coli* bacteria in sewage water samples.

7-23 January 1995

Mr. Ding Zhihu, First Institute of Oceanography, State Oceanic Administration, Qingdao, China: to undertake research on meiofaunal polychaetes.

16-20 January 1995

Prof. P.S. Rainbow, School of Biological Sciences, Queen Mary and Westfield College, University of London, U.K.: to undertake research on the phylogeny of trace metal accumulation in gastropod molluscs.



Marine research is not always as pleasant as one would like to believe.

10-23 March 1995

Prof. J.C. Britton, Department of Biology, Texas Christian University, Fort Worth, Texas, U.S.A.: to work with Prof. B. Morton on a book on the shore ecology of the Azores.

20 March - 10 April 1995

Dr. J.D. Taylor, Natural History Museum, London, U.K.: to undertake research on the diets and feeding ecology of predatory gastropods in Lobster Bay.

28 March - 25 April 1995

Dr. M. Davies, University of Sunderland,

U.K.: to undertake collaborative research with Dr. G.A. Williams on the role of mucus on intertidal primary succession.

2 May - 29 June 1995

Mr. H. Stone, Department of Earth Sciences, University of Cambridge, U.K.: to undertake research on the functional morphology and evolution of shell ornamentation in epifaunal bivalves.

8-26 May 1995

Ms. Li Li, Capital Normal University, Beijing, China: to undertake research on two species of sphaeromatid isopods on local shores and their ecology.

14 June - 6 July 1995

Dr. P.A.G. Barnes, Smithsonian Tropical Research Institute, Panama: to undertake research with Prof. B. Morton on the functional morphology of *Macrinula reevesii* (Bivalvia: Mactroidea) and its adaptations for a deposit feeding lifestyle.

10-16 July 1995

Dr. Fredrik Pleijel and Mr. Thomas G. Dahlgren, Tjarno Marine Biological Laboratory, Sweden: to undertake research on polychaete systematics and taxonomy.

18-24 July 1995

Dr. Phyllis K. Knight-Jones, School of Biological Sciences, University of Wales, Swansea, U.K.: to undertake studies on the distribution and taxonomy of Hong Kong Spirorbidae and Sabellidae (Polychaeta).

14 July 1995 - 15 August 1995

Miss V. Li, School of Ocean Sciences, University of Wales, Bangor, U.K.: to undertake research on the local crab *Petrolisthes japonicus*.

16 July 1995 - 3 October 1995

Ms. C. Hoffmann, Institute of Offshore Engineering, Heriot-Watt University, Edinburgh, U.K.: to undertake research on the proposed Sha Chau/Lung Kwu Chau Chinese white dolphin marine park.

30 August - 10 September 1995

Dr. Amanda Vincent, University of Oxford: to work with Dr. Y. Sadovy on a book chapter on the role of reproductive ecology in conservation biology.

30 October - 1 November 1995

Dr. M.E. Hellberg, Scripps Institute of Oceanography, La Jolla, California, U.S.A.: to collect samples of *Chlorostoma* for phylogenetic analysis.

THE SHORT-TERM VISITORSHIP SCHEME

The institute's Short-Term Visitorship Scheme is financed through profits made from the sale of souvenir items and marine biological books published by Hong Kong University Press.

Funded by a loan of HK\$81,695 from the University of Hong Kong in 1990, the sale of souvenir items up until 30 September 1995 amounted to HK\$87,620; proceeds from the sale of books was HK47,610. This year, the scheme has funded two short-term visitors from China to the institute, Ms. Li Li (Capital Normal University, Beijing) and Mr. Ding Zhihu (First Institute of Oceanography, Qingdao).

VISITOR STATISTICS

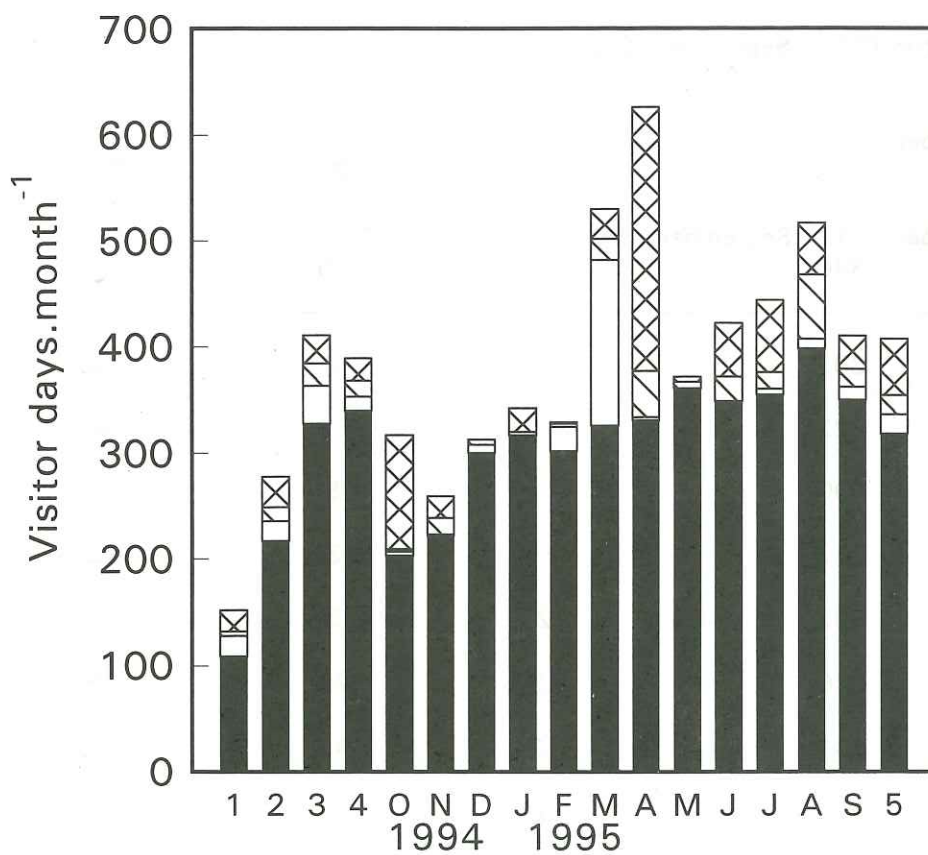
In addition to providing research facilities for local academics, students and visitors, the institute also entertains educational visits by public groups and welcomes volunteers to help with beach clean ups and other activities. The institute also provides a conference venue for University personnel and organizations, especially those with an interest in marine biology. Local diving clubs also make use of the institute's diving facilities and are helping staff and students with their research projects.

Visitor days.month⁻¹

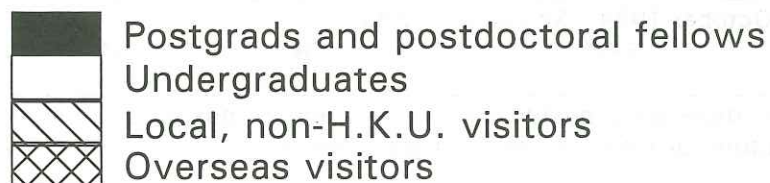
Date	Postgraduates and postdoctoral fellows	Undergraduates	Local, non H.K.U., visitors	Overseas visitors	Total
Average: October 1990 - September 1991					
	109	19	4	20	153
Average: October 1991 - September 1992					
	217	19	13	29	279
Average: October 1992 - September 1993					
	328	35	21	27	414
Average: October 1993 - September 1994					
	340	13	15	21	389
October 1994	203	4	2	108	317
November	222	1	16	20	259
December	300	8	5	0	313
January 1995	317	0	3	22	342
February	302	23	3	1	329
March	326	156	20	28	530
April	331	3	43	249	629
May	361	0	6	5	372
June	349	0	23	50	422
July	355	5	16	68	444
August	398	9	61	49	517
September	350	12	17	31	410
Average: October 1994 - September 1995					
	318	18	18	53	407

At present, there are 2 postdoctoral fellows and 21 postgraduate students undertaking research at the institute; of these 18 reside at the Residence.

Occupancy of The Laboratory



- 1 Average Oct 90 - Sept 91
- 2 Average Oct 91 - Sept 92
- 3 Average Oct 92 - Sept 93
- 4 Average Oct 93 - Sept 94
- 5 Average Oct 94 - Sept 95



THE RESIDENCE STATISTICS

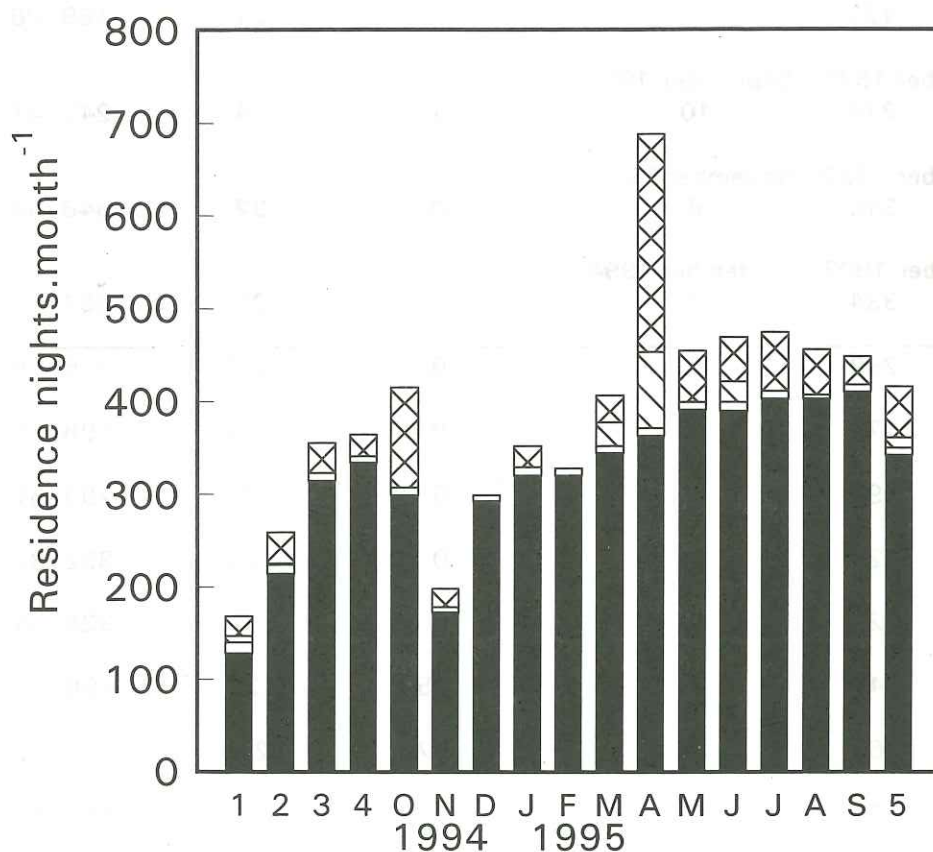
Over the past year, The Residence has well served its purpose of providing good residential accommodation for scientists and students to stay and work at the institute. The Residence, comprising ten bedrooms, of which four have *en suite* shower and toilets, is a self-contained facility with its own lounge, cooking and washing facilities and a sun balcony with magnificent views. The Residence is popular with local and visiting scientists. In 1994, a second Residence was completed, providing 6 new student rooms and two more visitor's rooms, one of which is a suite.

Residence nights.month⁻¹

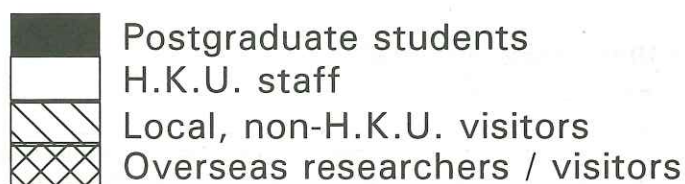
Date	Post-graduate Students	HKU Staff	Local, non- H.K.U., visitors	Overseas researchers/ Visitors	Total	%	%
Average: October 1990 - September 1991							
	128	12	7	21	158	26	(53)
Average: October 1991 - September 1992							
	214	10	1	34	248	41	(83)
Average: October 1992 - November 1993							
	315	8	0	32	348	58	(116)
Average: October 1993 - September 1994							
	334	7	0	23	357	60	(120)
October 1994	299	8	0	108	415	69	(138)
November	172	6	0	20	198	21	(42)
December	293	6	0	0	299	31	(62)
January 1995	320	9	0	23	352	37	(74)
February	320	8	0	0	328	34	(68)
March	344	8	25	29	406	42	(84)
April	363	8	82	235	688	72	(144)
May	391	8	0	55	454	47	(94)
June	390	9	22	48	469	49	(98)
July	403	8	0	63	474	49	(98)
August	403	4	0	49	455	47	(94)
September	410	8	0	30	448	47	(94)
Average: October 1994 - September 1995							
	342	8	11	55	416	45	(91)

Note: The % figures represent the proportion of the total available bed spaces, that is, 32 bed spaces x30 nights.month⁻¹ = a total of 960 residence nights. Since, however, most students and visitors require a room to themselves, occupancy rates based on 16 bed spaces x30 nights.month⁻¹ = a total of 480 residence nights are also given in brackets.

Occupancy of The Residence



- 1 Average Oct 90 - Sept 91
- 2 Average Oct 91 - Sept 92
- 3 Average Oct 92 - Sept 93
- 4 Average Oct 93 - Sept 94
- 5 Average Oct 94 - Sept 95



ACADEMIC ACTIVITIES

STAFF

Professor B. Morton

- (i). Predatory gastropods of Cape d'Aguilar shores (with Dr. J.D. Taylor, London).
- (ii). The intertidal ecology of the Cape d'Aguilar Marine Reserve.
- (iii). The biology of marine Bivalvia.
- (iv). Shore ecology of the Azores (with Prof. J.C. Britton, Texas, and Prof. A.M. Frias Martins, Azores).

Dr. S.Y. Lee

- (i). Ecology of the Mai Po Marshes Nature Reserve.
- (ii). Ecophysiology of the green mussel *Perna viridis* (with Dr. S.G. Cheung, City University of Hong Kong).
- (iii). Ecology of local seagrasses (with Prof. R.S.S. Wu, City University of Hong Kong).

Dr. Y. Sadovy

- (i). The reproductive biology of two fish species at Cape d'Aguilar, the wrasse, *Halichoeres nigrescens*, and the rockfish, *Sebasticus marmoratus*.
- (ii). Early sexual development and the possible influence of social factors on sexual differentiation in juvenile groupers.

Dr. G.A. Williams

- (i). Algae-herbivore interactions on Cape d'Aguilar shores.
- (ii). The behaviour and physiology of high shore limpets.



The mangrove and sea grass bed (*Zostera japonica*) at Tung Chung, Lantau Island.

POST-DOCTORAL FELLOWS

Dr. Liu Jianhua

From 1 July to 31 October 1995, Dr. Liu Jianhua was appointed to undertake a study of the effects of pollution upon the physiology, reproduction and radula teeth structure of Hong Kong limpets in relation to pollution supported by a grant from the Committee on Research and Conference Grants of the University of Hong Kong.

Dr. Liu also continues research on the growth and reproduction of the intertidal mussel *Septifer virgatus* and predatory snails.

Dr. Deborah Cha Mei Wah

From 1 November 1994 to 31 October 1995, Dr. M.W. Cha was appointed as a Croucher Foundation Post-doctoral Fellow at the Institute. Dr. Cha undertakes research on pollution and environmental management at the Mai Po Marshes Nature Reserve.

RESEARCH FELLOWS

The following persons have been appointed as Research Fellows at the Swire Institute of Marine Science by the Swire Institute of Marine Science Committee of Management of The University of Hong Kong.

Prof. J.C. Britton Ph.D (George Washington), Department of Biology, Texas Christian University, Forth Worth, Texas, U.S.A.

Dr. M.J. Broom Ph.D (Malaysia), Environmental Protection Department, Hong Kong Government.

Dr. S.G. Cheung Ph.D (H.K.U.), Department of Biology and Chemistry, The City University Polytechnic of Hong Kong.

Dr. R.Y.H. Cheung Ph.D (Manchester), Department of Biology and Chemistry, The City University Polytechnic of Hong Kong.

Dr. M. Davies Ph.D. (Victoria University of Manchester), Ecology Centre, University of Sunderland, U.K.

Dr. E.M. Harper Ph.D (O.U.), Department of Earth Sciences, University of Cambridge, U.K.

Prof. Huang Zong Guo, Third Institute of Oceanography, State Oceanic Administration, Fujian, China.

Dr. R.T. Kneib Ph.D. (University of North Carolina), University of Georgia Marine Institute, Sapelo Island, U.S.A.

Dr. S.F. Leung Ph.D (H.K.U.), Agriculture and Fisheries Department, The Hong Kong Government.

Dr. R.G. Ong Che Ph.D (H.K.U.), Department of Applied Science, the Vocational Training Council Technical College, Hong Kong.

Prof. P.S. Rainbow Ph.D. (Wales), Queen Mary and Westfield College, University of London, U.K.

Dr. J.D. Taylor Ph.D (London), Department of Zoology, The Natural History Museum, London, U.K.

Dr. A.C.J. Vincent Ph.D. (Cambridge), Department of Zoology, University of Oxford, U.K.

Dr. N.Y.S. Woo Ph.D (H.K.U.), Department of Biology, The Chinese University of Hong Kong.

Prof. R.S.S. Wu Ph.D (British Columbia), Department of Biology and Chemistry, The City University of Hong Kong.

Dr. M.W.M. Yipp M.Phil., Ph.D (H.K.U.), Department of Applied Science and Chemical Technology, Hong Kong Polytechnic University.

Prof. Zou Ren Lin, South China Sea Institute of Oceanology, Academia Sinica, Guangzhou, China.

INSTITUTE FELLOWS

The following persons have been appointed as Institute Fellows at The Swire Institute of Marine Science by the Swire Institute of Marine Science Committee of Management of the University of Hong Kong.

Mr. J.W. Bradford M.Arch (U.S.A.), Department of Architecture, The University of Hong Kong.

Prof. R. Cowan Ph.D (New South Wales), Department of Statistics, The University of Hong Kong.

Dr. B.W. Darvell Ph.D (Birmingham), Dental Materials Science Unit, Prince Philip Dental Hospital, The University of Hong Kong.

Prof. M.D. Dickman Ph.D (British Columbia), Department of Ecology and Biodiversity, The University of Hong Kong.

Dr. I.J. Hodgkiss Ph.D. (Wales), Department of Ecology and Biodiversity, The University of Hong Kong.

Dr. Liu Jianhua Ph.D. (University of Hong Kong), The Swire Institute of Marine Science, The University of Hong Kong.

HIGHER DEGREE STUDENTS

Ms. Huang Qin (Ph.D.)
Polymorphism in Hong Kong Neritidae (Mollusca).

Mr. Sven Kaehler (Ph.D.)
The ecology of epilithic crustose algae on Hong Kong shores.

Ms. Kate D. Harper (Ph.D.)
The ecology of *Acanthopleura japonica* on Hong Kong's exposed rocky shores.

Mr. Peter R.J. Collinson (Ph.D.)
The ecology, growth and reproduction of Hong Kong corals.

Ms. Susan Hawkins (Ph.D.)
The productivity of Lobster Bay.

Mr. Y.M. Mak (Ph.D.)
The ecology of rocky shore littorines.

Mr. Robin Kennish (Ph.D.)
Crab herbivory on the shores of Cape d'Aguilar.

Mr. Albert W.Y. Leung (Ph.D.)
Fisheries enhancement potential of the Hoi Ha Wan Artificial Reef.

Ms. Katherine K.Y. Lam (M.Phil.)
Coral colonization of the Hoi Ha Wan Artificial Reef.

Mr. K.F. Leung (Ph.D.)
Leaching of trace metals from the Hoi Ha

Wan Artificial Reef.

Mr. E.C.M. Parsons (Ph.D.)
Biology, behaviour and conservation of Hong Kong's cetaceans.

Ms. Lindsay J. Porter (Ph.D.)
The taxonomy, distribution and biology of the Chinese white dolphin, *Sousa chinensis*.

Ms. Helen S.M. Chiu (Ph.D.)
Energetics of the rock oyster *Saccostrea cucullata*.

Ms. Winnie S.M. Tang (Ph.D.)
A coastal GIS database, maps and virtual reality computing.

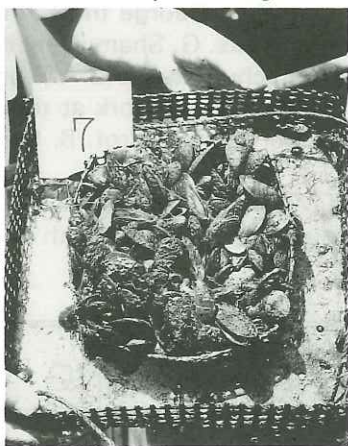
Ms. Tracy Clark (Ph.D.)
The ecology of Cape d'Aguiar corals.

Ms. Chan King (Ph.D.)
Effects of pollution on the life history strategy of *Nassarius festivus*.

Mr. Steve McChesney (M.Phil.)
The intertidal mudflat community at the Mai Po Marshes Nature Reserve.

Mr. Alan W.L. Chan (M.Phil.)
Retention and depuration of trace metals by commercial bivalves.

Miss Phoebe W.C. Sze (M.Phil.)
Bioenergetics and accumulation of copper in *Perna viridis* and *Septifer virgatus*.



An experiment on the green-lipped mussel, *Perna viridis*

Miss Josephine K.Y. Yang (M.Phil.)
Ecology of the mudskipper *Boleophthalmus pectinirostris* at the Mai Po Marshes Nature Reserve.

Mr. Vincent C.S. Lai (M.Phil.)
Feeding strategies of the crab *Thalamita danae*.

Ms. Pauline Y.F. Tong (M.Phil.)

Herbivory in local mangroves.

Mr. Terence C.W. Fong (M.Phil.)
Ecology of Hong Kong seagrasses.

Mr. Patrick P.F. Lau (M.Phil.)
The reproductive biology of threadfin bream, *Nemipterus japonicus* and *N. virgatus*.

Ms. Julia Shaw (Ph.D.)
Classification, distribution and potential value of Hong Kong sedges and rushes as environmental monitors.

Ms. C.L. Nightingale (Ph.D.)
Hong Kong's sandy beaches with special reference to the ecology and conservation of the Chinese Horseshoe crab.

Ms. Denise McCorry (Ph.D.)
The biodiversity of Hong Kong's corals.

Mr. Andrew Cornish (M.Phil.)
The biodiversity of coral reef fishes.

Mr. Charles Lee Sung Chi (M.Phil.)
Identification of secondary chemicals produced by algae.

Ms. Seonaid M. Anderson (Ph.D.)
The foraging behaviour of grazers.

Mr. Ng Wai Chuen (M.Phil.)
Biology of the rockfish *Sebasticus marmoratus*.

NEW ARRIVALS

From 14 August 1995, Mr. Anthony Ching Shiu Kai was appointed Laboratory Assistant/Driver.

From 1 March 1995, Ms. Julia Shaw. To read for a Ph.D. degree under the supervision of Dr. R. Corlett (Department of Ecology and Biodiversity, The University of Hong Kong), on local sedges and rushes.

From 1 April 1995, Ms. C.L. Nightingale (China Light & Power Scholar). To read for a Ph.D. degree under the supervision of Prof. B. Morton on the Chinese horseshoe crab.

From 1 November 1995, Dr. Li Mingshun of the Guangdong Environmental Monitoring Centre, Guangzhou, China, has been appointed as Postdoctoral Fellow by the University of Hong Kong to conduct 12-months research, with Dr. S.Y. Lee, on the ecology of the Deep Bay mangroves.

From 1 November 1995, Ms. Denise McCorry (Hong Kong Jockey Club Scholar). To read for a Ph.D. degree under the supervision of Prof. B. Morton on coral biodiversity.



The Railroad vine *Ipomoea pes-caprae* at the Cape d'Aguilar Marine Reserve.

From 1 November 1995, Mr. Andrew Cornish (Hong Kong Jockey Club Scholar). To read for a M.Phil. degree under the supervision of Dr. Y. Sadovy on coral reef fishes.

From 1 October 1995, Mr. W.C. Ng. To read for a M.Phil. degree under the supervision of Dr. Y. Sadovy on the biology of the rockfish *Sebasticus marmoratus*.

From 1 October 1995, Mr. Charles Lee Sung Chi. To read for a M.Phil. degree under the supervision of Dr. G.A. Williams and Dr. G. Brown (Department of Chemistry, The University of Hong Kong) on the secondary chemicals produced by algae.

From 1 October 1995, Ms. Seonaid M. Anderson. To read for a Ph.D. degree under the supervision of Dr. G.A. Williams on the effects of food quality on the foraging behaviour of grazers.

UNDERGRADUATES

Mr. Henry T.H. Lui will undertake a final year project on the effects of nitrogen enrichment on the mangrove *Kandelia candel* under the supervision of Dr. S.Y. Lee.

During 1994-1995, Ms. Rita S.H. Leung completed her final year undergraduate project on "Microhabitat selection and clump formation in *Cellana grata*" under the supervision of Dr. G.A. Williams.

Mr. Benny, K.K. Chan is undertaking his final year undergraduate project on spatial and

temporal variation in intertidal rockpools, under the supervision of Dr. G.A. Williams.

From October 1995, Mr. Tsui Ying Kit, a final year undergraduate in the Department of Mechanical Engineering, The University of Hong Kong has been working on his dissertation project with the institute's sewage treatment plant, under the supervision of Dr. A. Koenig, Department of Civil and Structural Engineering.

SUMMER STUDENTS

The following six students undertook summer work at the Institute for the period of 5 June to 4 September 1995.

Ms. Lee Cheuk Wah and Ms. Lee Lai Ying were appointed as Student Research Assistants to the GIS database project.

Mr. Wong Ho Pui and Ms. Lai Hong Yu were appointed as Student Research Assistants to the Chinese white dolphin project.

Mr. Benny K.K. Chan and Mr. Richard Huang were appointed as Student Research Assistants to measure limpets trails under the supervision of Dr. G.A. Williams.

The following student helpers undertook summer work for the period of June 1995:

Ms. S. Chum (King George the Fifth School, Hong Kong) and Ms. G. Sham (Needham High School, Massachusetts, U.S.A.) undertook summer job experience work at the institute under the supervision of Prof. B. Morton.

Ms. Ada T.W. Ma, Li Po Chun United World College, helped Ms. L. Porter with her dolphin project.

STAFF TRAINING

Ms. Diana K.F. Ip and Mr. James C.T. Hui During September - December 1995, Ms. Ip and Mr. Hui attended a course in Human Resources Management organized by the School of Professional and Continuing Education, The University of Hong Kong.

From 26-29 June 1995, Ms. Winnie S.M. Tang attended the "Communication Course for Researchers" organized by the School of Research Studies of the University of Hong Kong.

STAFF ACTIVITIES

In August 1995, Dr. G.A. Williams visited Sunderland University to visit field sites and continue collaborative research with Dr. Mark Davies, University of Sunderland.

From 11 August - 10 September 1995, Prof. B. Morton visited the University of the Azores, Portugal, where he undertook field research in connection with a book he is writing on the shore ecology of the islands.

From 19-25 October 1995, Prof. B. Morton visited the Leigh Marine Laboratory of the University of Auckland and the Department of Marine Science of the University of Otago, Dunedin, New Zealand, where he inspected their Marine Education Centres and held discussions on the possibilities of collaboration in the field of Marine Education.



Staff and students share a meal with the crew of a fishing boat hired for research, in North Lantau waters.

STAFF AND STUDENT COMMUNITY SERVICE

Prof. B. Morton

Member: Executive Council, Executive Committee and Trustee of WWF Hong Kong.

Chairman: WWF Hong Kong Education Committee.

Chairman: WWF Hong Kong, Hoi Ha Wan Committee.

Chairman: The Marine Parks and Reserves Committee, The Country and Marine Parks Board.

Member: WWF Hong Kong, Island House Management and Development

Committee.

Member: WWF Hong Kong, Projects Committee.

Member: The Dumping at Sea Act 1974 Appeal Board. The Hong Kong Government.

Member: Water Pollution Control Ordinance (Cap 358) Appeal Board. The Hong Kong Government.

Member: Endangered Species Advisory Committee. The Hong Kong Government.

Member: The Country and Marine Parks Board. The Hong Kong Government.

Member: Mollusc Specialist Group, Species Survival Commission of IUCN.

Member: United Nations Environment Programme: United Kingdom Committee.

Member: The Council of the Marine Biological Association of Hong Kong.

Member: The Environment and Conservation Fund Committee, The Hong Kong Government

Member: Academic Commission for the First Term of the Marine Biology Research Station at Daya Bay, South China Sea Institute of Oceanology, Academia Sinica, China.

Editor: *Asian Marine Biology*.

Regional Editor: *Marine Pollution Bulletin*.

Editorial Board: *American Malacological Bulletin*.

Editorial Board: *Tropic Oceanology*.

Editorial Board: *Raffles Bulletin of Zoology, Singapore*.

Editorial Board: *Malacological Review*.

Editorial Board: *Journal of Zoology, London*.

Dr. S.Y. Lee

Chairman: The Council of The Marine Biological Association of Hong Kong.

Member: Marine Parks and Reserves Working Group, The Hong Kong Government.

Member: WWF Hong Kong: Mai Po
Management and Development
Committee.

Member: WWF Hong Kong, Hoi Ha Wan
Committee.

Member: Standing Committee on Mangrove
Ecological Research, Ecological
Society of China.

Expert witness: Town Planning Appeal
Board.

Dr. G.A. Williams
Member: WWF Hong Kong: Hoi Ha Wan
Committee.

Dr. Y. Sadovy
Member: Hong Kong Government Working
Group on Shark Attacks.

Mr. K.F. Leung
Membership Secretary: The Council of The
Marine Biological Association of Hong
Kong.

Mr. E.C.M. Parsons.
Events Secretary: The Hong Kong Marine
Conservation Society.

Ms. L.J. Porter
Membership Secretary: The Council of The
Hong Kong Marine Conservation Society.

Ms. Winnie S.M. Tang
Country editor: *GIS Asia/Pacific Journal*.

Committee member: Hong Kong Geographic
Information Systems Association.

CONFERENCES AND WORKSHOPS

Prof. B. Morton was a member of the local organizing committee and participated in the World Congress on the Urban Growth and Environment convened in Hong Kong from 7-12 November 1994.

From 22-25 January 1995, Prof. Morton attended an International Conference on Marine Pollution and Ecotoxicology at the City University of Hong Kong and chaired the final discussion session.

Prof. B. Morton is a member of the local organizing committee for the Institute of Marine Engineers Tenth International Maritime and Shipping Conference (IMAS 96), entitled "Shipping and the Environment: Problems and Solutions? Hong Kong 1996" to be convened in Hong Kong from 2-4 October 1996.

From 5-12 June 1995, Prof. B. Morton attended the XVIII Pacific Science Congress in Beijing, China, entitled "Population, Resources and Environment: Prospects and Initiatives" and presented a paper entitled "Protecting Hong Kong's marine biodiversity: present proposals, future challenges".

Ms. A.L.C. Chan also attended the above Congress and presented a poster entitled "The plankton of the southern waters of Hong Kong".

From January 8-14, 1995, Dr. G.A. Williams, Mr. Sven Kaehler and Mr. Robin Kennish attended the XVth International Seaweed Symposium in Chile. They presented the following papers.

Dr. G.A. Williams (with J. Hall-Spencer and Mr. Hau Chi Hang). "The influence of urchin grazing on encrusting coralline algae in tropical rock pools" and "Seasonal variation in a *Fucus serratus* assemblage".

Mr. S. Kaehler. "The role of physical and biotic factors affecting the recruitment of encrusting algae on a seasonal tropical rocky shore".

Mr. R. Kennish. "Algal seasonality on an exposed tropical rocky shore: dietary implications for a herbivorous crab".

From 25-28 May, 1995, Ms. Winnie S.M. Tang represented the University of Hong Kong on the organizing committee, as

Conference Secretary, of the "International Symposium on Geoinformatics: Remote Sensing, GIS and Global Positioning System in Sustainable Development and Environmental Monitoring, hOng Kong, 1995".

On 18 September 1995, Ms. Winnie S.M. Tang attended a GIS Symposium in Hong Kong entitled "Data supplies and needs", jointly organized by the Hong Kong Geographic Information Systems Association and the Hong Kong Institute of Engineers".

From 26 - 2 July 1995, Dr. Y. Sadovy and Mr. Patrick Lau attended an International Larval Fish Conference in Australia and the Annual Conference of the Australian Society for Fish Biology, in Australia. Dr. Sadovy gave an oral presentation entitled "Patterns of reproduction in larger fishes of tropical reefs" and Mr. Lau presented a poster entitled "The reproductive biology of *Nemipterus japonicus* and *N. virgatus*."

From October 16-20 1995, Dr. Y. Sadovy attended the Fourth Asian Fisheries Forum in Beijing, China. She presented a paper entitled "Sustainable management of grouper fisheries".

On 1 September 1995 the following students joined a Hong Kong Postgraduate Symposium at the City University of Hong Kong entitled "Joint University Biology Symposium '95" and presented the following posters.

Mr. Y.M. Mak (also a member of the organizing committee). "The spatial and temporal distribution of Hong Kong rocky shore littorinids, with special reference to microalgal distribution" and "Egg capsule morphology of five Hong Kong rocky shore littorinids".

Ms. Julia Shaw. "Classification, distribution and the potential use of Hong Kong Cyperaceae and Juncaceae" (sedges and rushes) as environmental monitors: a research framework".

Ms. Tracy Clark. "The ecology of corals in a peripheral environment, Cape d'Aguilar, Hong Kong".

Ms. L.J. Porter. "Hong Kong's dolphins captured on camera".

Mr. Terence C.W. Fong. "Ecology of seagrass".

Ms. C. Hoffmann, a visiting student, also gave an oral presentation at the symposium entitled "A sanctuary for the Chinese white dolphin (*Sousa chinensis*) in Hong Kong?"

From 22-25 August 1995, Ms. Pauline Y.F. Tong attended the 7th European Ecological Congress in Hungary and presented a paper entitled "Insect herbivory on mangroves in Hong Kong".

From 15-16 June 1995, Mr. E.C.M. Parsons and Ms. L.J. Porter attended the Third Symposium on Cetacean Ecology and Conservation, Taipei, Taiwan, and jointly presented a paper entitled "The threats to Hong Kong's Indo-Pacific Humpbacked dolphin population". Ms. Porter also presented a paper entitled "Coloration patterns of the Chinese white dolphin, *Sousa chinensis*".

From 26-30 June 1995, Mr. E.C.M. Parsons and Ms. L.J. Porter attended the UNEP symposium and workshop on the Biology and Conservation of Small Cetaceans in Southeast Asia, Silliman University, Philippines. Mr. Parsons presented two papers entitled "The mortality and conservation of small cetaceans in Hong Kong's territorial waters" and "A status review of small cetaceans in Hong Kong". Ms. Porter presented a paper entitled "Development of the Pearl River delta: implications for the Chinese white dolphin *Sousa chinensis*". Mr. Parsons and Ms. Porter were also co-authors of the paper "A review of the taxonomic status of Humpback dolphins, genus *Sousa*", with G.J.B. Ross, G.E. Heinsohn, V.G. Cockroft and A. Preen.

From 9-17 August 1995, Dr. Y. Sadovy and Mr. E.C.M. Parsons attended the 24th International Ethological Conference, Honolulu, Hawaii. Dr. Sadovy presented a paper entitled "Patterns of sexuality in teleost fishes". Mr. E.C.M. Parsons and Ms. L.J. Porter presented a paper entitled "Aspects of the behaviour of the Indo-Pacific humpbacked dolphin (*Sousa chinensis*) in Hong Kong", with Mr. H.P. Wong.

From 3-8 September 1995, Ms. Huang Qin attended the Twelfth International Malacological Congress in Vigo, Spain and presented a paper entitled "The morphological, allozymic and karyotypic distinctions between *Neritina (Dostia) violacea* and *N.(D.) cornucopia* (Mollusca:

Gastropoda)".

From 18-22 September 1995, Ms. S. Hawkins attended the 30th European Marine Biological Symposium in Southampton, U.K. and presented a paper entitled "Epibenthic communities on artificial substrata in Hong Kong".

From 5-9 September 1995, Mr. P.R.J. Collinson attended the European Meeting of the International Society for Reef Studies organized by the British Ecological Society in Newcastle, U.K., and presented a poster entitled "Hong Kong's coral communities".

The 13th Annual Scientific Meeting of The Marine Biological Association of Hong Kong was held on Saturday 10 December 1994. The following staff and students presented talks.

Ms. P.W. Kwok. "The ecology of mangrove crabs at the Mai Po Marshes Nature Reserve, Hong Kong".

Dr. S.Y. Lee. "A non-destructive method to estimate seagrass (*Zostera japonica*) productivity using image analysis techniques".

Dr. Liu Jianhua. "The temperature tolerance of *Tetraclita squamosa* (Crustacea: Cirripedia) and *Septifer virgatus* (Bivalvia: Mytilidae) on a sub-tropical rocky shore in Hong Kong".

Prof. B. Morton. "The biology of *Isognomon legumen* at Cape d'Aguilar, Hong Kong".

Dr. Y. Sadovy. "Peculiarities of the male urogenital apparatus in grunts and sweetlips (Haemulidae)".

From 29 October to 2 November 1995, Mr. A.W.Y. Leung and Mr. K.F. Leung attended the "International Conference on Ecological System Enhancement Technology for Aquatic Environments", in Tokyo, Japan where they presented (with K.Y. Lam and B. Morton) a paper entitled "The deployment of an experimental reef in Hong Kong: objectives and initial results".

STUDENT AND STAFF SUCCESSES

Ms. Carmen Anderson obtained her Ph.D. for a thesis entitled "The production ecology of

the mangrove at the Mai Po Marshes Nature Reserve, Hong Kong" and has been appointed as a senior consultant with Environmental Resources Management Hong Kong Ltd..

Ms. Alice L.C. Chan obtained her Ph.D. for a thesis entitled "The ecology of plankton in Tai Tam Bay, Hong Kong, with special reference to barnacle (Arthropoda: Cirripedia) larvae" and has been awarded a Post-doctoral fellowship by the Croucher Foundation to undertake research at the University of Wales, Bangor, U.K..

Ms. Winnie P.K. Kwok obtained her Ph.D. for a thesis entitled "The ecology of two sesarminae crabs, *Perisesarma bidens* (De Haan) and *Parasesarma plicata* (Latreille) at the Mai Po Marshes Nature Reserve" and has been appointed as a Assistant Forestry Officer with the Agriculture and Fisheries Department of the Hong Kong Government.

Ms. K. Harper has been appointed as a consultant with Consultants in Environmental Sciences (Asia) Ltd..

AWARDS

In March 1995, Ms. Winnie S.M. Tang was awarded a Sir Edward Youde Memorial Fellowship.

Mr. Mak Yiu Ming has been awarded a Croucher Foundation post-doctoral Fellowship to undertake regional research on littorine snails commencing on 1 January 1996.

EXCHANGE AGREEMENTS

Established in 1992 and supported by The Swire Group of Companies and the British Council, a tripartite exchange agreement fosters academic links between the Swire Institute of Marine Science, the University of Hong Kong, the School of Ocean Sciences, University of Wales, Bangor, U.K. and the South China Sea Institute of Oceanology, Academia Sinica, Guangzhou, China.

The Agreement, signed on the 24 February 1992 by the Vice-Chancellor of The University of Hong Kong, Professor Wang Gungwu, the Principal of The University of Wales, Bangor, Professor E. Sunderland, and the Director of the South China Sea Institute of Oceanology, Guangzhou, Professor Sun Yuke, was renewed in 1995 for a further

period of three years and facilitates exchange of staff and students.

In 1995, the following exchanges were approved:

From Hong Kong:

From 14 July to 13 August 1995, Ms. Chan King visited the University of Wales, Bangor, U.K. where she undertook research on the distribution, pattern of diurnal activity, growth and imposex of the scavenging snail *Nassarius reticulatus*. This will help her to compare differences between temperate and sub-tropical species of the Nassariidae.

From Bangor, U.K.:

From 2-21 April 1995, Prof. R. Seed visited Hong Kong to participate in the Fourth International Workshop on the Marine Flora and Fauna of Hong Kong and southern China 1995 and to undertake research on rocky shore mussels. Also, to visit Guangzhou and give seminars.

From 2-21 April 1995, Dr. C. Richardson visited Hong Kong to participate in the Fourth International Workshop on the Marine Flora and Fauna of Hong Kong and southern China 1995 and to undertake research on rocky shore mussels. Also, to visit Guangzhou and give seminars.

On the 10 November 1994, the Director of the Swire Institute of Marine Science and Prof. Yu Xiaoqun, the Director of the Third Institute of Oceanography, State Oceanic Administration, China, signed an Agreement to foster academic exchanges.



Prof. Yu Xiaoqun and Prof. B. Morton sign an Agreement to foster exchanges between their respective institutes.

LAURENCE CAPLIN SCHOLARSHIP IN MARINE BIOLOGY

In memory of Laurence Caplin (7 November

1914 - 30 April 1991), his widow, Mrs. E. Caplin, and daughter, Mrs. J. Woodford, of England, donated in 1993 the sum of HK\$150,000 to be invested and the interest from which is to be used to bring to the Swire Institute of Marine Science young people to undertake research in marine biology with resident staff. Applications for the scholarship are invited.

INTERTIDAL TRUST FUND

Established in 1982 with profits from the sale of "*The Sea Shore Ecology of Hong Kong*" grants from the Intertidal Trust Fund can be made to overseas students and scientists who wish to undertake research on intertidal ecology at the Swire Institute of Marine Science.

In 1995, an award was made to Dr. P.A.G. Barnes, Smithsonian Tropical Research

Institute, Panama, to come to the institute and undertake research on *Macrinula reevesii* (Bivalvia) and its adaptation to a deposit-feeding lifestyle, with Prof. B. Morton.

CAPE D'AGUILAR TRUST FUND

Established in 1995 with profits from the sale of the book "*An Introduction to the Cape d'Aguilar Marine Reserve, Hong Kong*", grants from the Cape d'Aguilar Trust Fund can be made to local and overseas students and scientists who wish to undertake marine biological research on the proposed Cape d'Aguilar Marine Reserve at the Swire Institute of Marine Science.



Participants in the Fourth International Workshop on the Marine Flora and Fauna of Hong Kong and southern China, convened at the institute from 2-20 April 1995.

RESEARCH AND OTHER ACTIVITIES IN MARINE SCIENCE

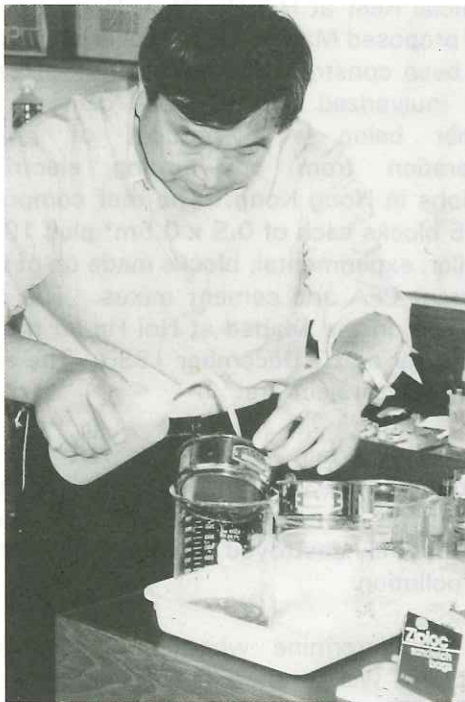
FOURTH INTERNATIONAL WORKSHOP ON THE MARINE FLORA AND FAUNA OF HONG KONG AND SOUTHERN CHINA

From the 2-20 April 1995, the Fourth International Workshop on the Marine Flora and Fauna of Hong Kong and southern China, was convened at the institute. Attended by 36 participants from overseas and locally, the Workshop had two major objectives: (1), to research the shores and sea area of the proposed Cape d'Aguilar Marine Reserve and (2), to re-investigate the sea bed studied in the third International Workshop on the Malacofauna of Hong Kong and southern China convened at the institute in 1992 and which in the intervening period had been extensively dredged for marine fill for the Port and Airport Development Strategy (PADS) and associated infrastructural works.

The following persons participated in the Workshop.

Australia

Ms. R. Cumming (James Cook University of North Queensland)



Prof. Zhang Zhinan, Qingdao, China, researched beach sand meiofauna at the workshop.

China

Prof. Huang Zongguo (Third Institute of Oceanography, Xiamen)
Prof. Zou Renlin (South China Sea Institute of Oceanology, Guangzhou)
Prof. Zhang Zhinan (Ocean University, Qingdao)

Denmark

Dr. J. Knudsen (Zoologisk Museum, Copenhagen)

Finland

Dr. K. Jensen (Zoological Museum, Helsinki)

Sweden

Prof. C. Erseus (Swedish Museum of Natural History, Stockholm)

Mr. L. Sandberg (Swedish Museum of Natural History, Stockholm)

United Kingdom

Dr. R. Bamber (Fawley Aquatic Research Laboratories Ltd.)

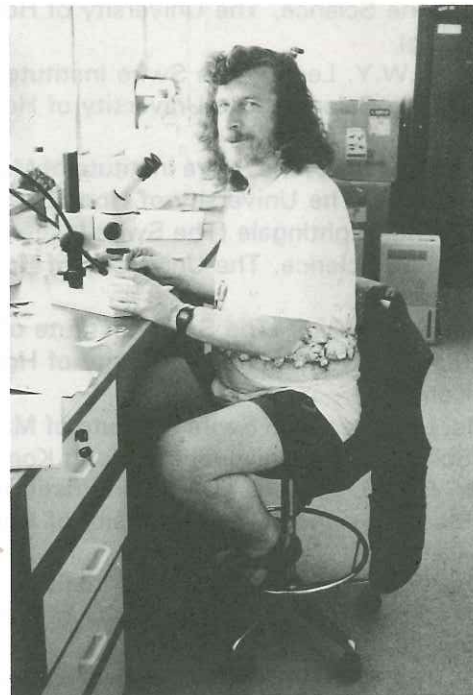
Dr. M. Davies (University of Sunderland)

Prof. R. Gibson (John Moores University)

Dr. E. Harper (University of Cambridge)

Dr. I. Lucas (University of Wales, Bangor)

Dr. C. Richardson (University of Wales, Bangor)



Dr. R. Bamber, U.K. researched pycnogonids (sea spiders) at the Workshop.

Prof. R. Seed (University of Wales, Bangor)

Dr. J.D. Taylor (Natural History Museum, London)

Hong Kong

- Dr. R.Y.H. Cheung (City University of Hong Kong)
- Dr. S.G. Cheung (City University of Hong Kong)
- Dr. L. Vrijmoed (City University of Hong Kong)
- Dr. S.F. Leung (Agriculture and Fisheries Department, Hong Kong Government)
- Prof. M. Dickman (Department of Ecology and Biodiversity, The University of Hong Kong)
- Prof. B. Morton (The Swire Institute of Marine Science, The University of Hong Kong)
- Dr. S.Y. Lee (The Swire Institute of Marine Science, The University of Hong Kong)
- Dr. G.A. Williams (The Swire Institute of Marine Science, The University of Hong Kong)
- Dr. Y. Sadovy (The Swire Institute of Marine Science, The University of Hong Kong)
- Ms. Tracy Clark (The Swire Institute of Marine Science, The University of Hong Kong)
- Mr. R. Kennish (The Swire Institute of Marine Science, The University of Hong Kong)
- Ms. Chan King (The Swire Institute of Marine Science, The University of Hong Kong)
- Mr. K.F. Leung (The Swire Institute of Marine Science, The University of Hong Kong)
- Mr. A.W.Y. Leung (The Swire Institute of Marine Science, The University of Hong Kong)
- Mr. Y.M. Mak (The Swire Institute of Marine Science, The University of Hong Kong)
- Ms. C.L. Nightingale (The Swire Institute of Marine Science, The University of Hong Kong)
- Ms. S. Hawkins (The Swire Institute of Marine Science, The University of Hong Kong)
- Ms. L. Porter (The Swire Institute of Marine Science, The University of Hong Kong)
- Mr. E.C.M. Parsons (The Swire Institute of Marine Science, The University of Hong Kong)
- Ms. W.S.M. Tang (The Swire Institute of Marine Science, The University of Hong Kong)
- Dr. Deborah M.W. Cha (The Swire Institute of Marine Science, The University of Hong Kong)

Thanks are due especially to the trustees of the K.C. Wong Education Foundation for supporting the participation of Prof. Zhou Renlin (Guangzhou), Prof. Huang Zongguo (Xiamen) and Prof. Zhang Zhinan (Qingdao) at

the workshop. Also thanked are volunteer divers: Mr. G. Baynes, Dr. B.W. Darvell, Mr. Marc Smith-Evans, Ms. Suzie Beach, Ian Thomas and Len Allwood.

BERMUDA BIOLOGICAL STATION FOR RESEARCH

The Bermuda Biological Station for Research Far Eastern Trust this year sponsored two graduate students from the Swire Institute of Marine Science to go to Bermuda and participate in an advanced course in Bermuda.

Mr. Terence C.W. Fong participated in the course "Tropical Marine Invertebrates" for the period from 11 June to 8 July 1994.

Mr. Patrick P.F. Lau participated in the course "Biology of Fishes" for the period from 9 July to 5 August 1995.

AN ARTIFICIAL REEF AT HOI HA WAN

In 1993, Hong Kong Electric Co.Ltd. and China Light and Power Co.Ltd., donated the sum of HK\$3.1 million to the institute to build, deploy and study an Experimental Artificial Reef at Hoi Ha Wan, Hong Kong's first proposed Marine Park. The artificial reef has been constructed from several mixes of PFA (pulverized fuel ash) and cement, the former being a by-product of power generation from coal-burning electricity stations in Hong Kong. The reef comprises 1015 blocks each of 0.5 x 0.5m² plus 1000, smaller, experimental, blocks made up of four different PFA and cement mixes. The reef was laid on the seabed at Hoi Ha on the 30 November and 3 December 1993. The aims of the reef project are:

1. To ascertain whether or not such a structure can be used safely to rebuild marine habitats in Hong Kong which have been progressively destroyed by shore reclamation and pollution.
2. To determine whether or not such structures will act as either fish aggregating or breeding devices to stimulate fisheries production in Hong Kong's coastal waters.
3. To understand the processes of marine

life colonization of the artificial reef by encrusting organisms, with particular reference to corals. That is, can corals, in particular, be encouraged to grow on the reef.

4. To research the leaching of trace metals from the reef blocks and their uptake by encrusting marine life, sediments, mussels and fish.

The grant provides research scholarships for three higher degree students to be based at the Swire Institute of Marine Science and to work on the project, as a team, for three years. The following students undertake the research.

Mr. Albert Y.W. Leung. Formerly a Fisheries Officer with the Agriculture and Fisheries Department of the Hong Kong Government, Albert supervises field work at Hoi Ha Wan and researches the fish fauna of the artificial reef.

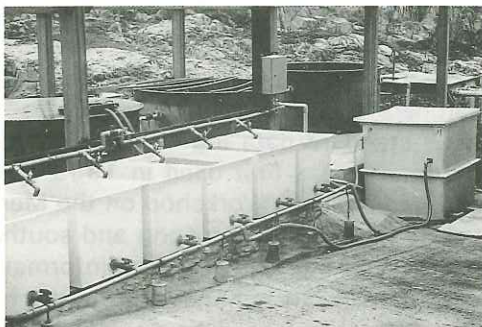
Ms. Katherine K.Y. Lam. A graduate in Environmental Science from The University of Hong Kong, Katherine researches the colonization of the artificial reef by corals and other organisms.

Mr. K.F. Leung. A graduate in Environmental Science from The University of Hong Kong, Kim Fung researches the leaching of trace metals from the reef blocks and their uptake and transport within the marine life of the artificial reef.

This research is co-ordinated by an Artificial Reef Working Group chaired by Prof. B. Morton which meets every six months.

SEAGRASS REHABILITATION

In 1993 Dr. S.Y. Lee was awarded the contract (HK\$200,000) for a Seagrass



Experimental tanks at the Swire Institute of Marine Science for the study of the seagrass *Zostera japonica*.

Rehabilitation project for *Zostera japonica* beds to be affected by the New Airport construction work at Tung Chung, Lantau Island. The objectives of the research are to assess the stress levels experienced by the seagrass and propose measures to minimize construction impacts.

A second award of HK\$630,000 was made by the Government in April 1994 to sponsor basic research into the community ecology of local seagrasses. The project is jointly conducted by Dr. S.Y. Lee and Prof. R.S.S. Wu (City University of Hong Kong).

HONG KONG'S CORALS AND FISHES

Mr. Peter R.J. Collinson initiated research on Hong Kong's corals at the institute and is at present writing up his Ph.D. thesis. Ms. Tracy Clark is investigating the distribution of corals within the proposed Cape d'Aguilar Marine Reserve and compares coral transplants from Hoi Ha Wan with those of Cape d'Aguilar. Ms. Katherine Lam investigates corals settling on the experimental artificial reef at Hoi Ha Wan. Two new students, Ms. Denise McCorry and Mr. Andrew Cornish now study the biodiversity of Hong Kong corals and coral fish, funded by a grant to the institute of HK\$1.83 million from the Hong Kong Jockey Club Charities Trust. Mr. Ng Wai Chuen is initiating research on the rockfish *Sebasticus marmoratus*.

THE CHINESE HORSESHOE CRAB

In 1995, China Light & Power Co.Ltd. made a donation to the Institute of HK\$900,000 to fund a Ph.D. student to undertake research on the Chinese horseshoe crab. Ms. C.L. Nightingale, a graduate in biology from the University of Oxford, has been appointed to the Scholarship. Once common on Hong Kong's beaches and in coastal waters, the Chinese horseshoe crab, is now threatened by pollution and overfishing and is rarely seen. This project aims at understanding the taxonomy and ecology of the crab with a view to making recommendations as to its conservation locally. Assistance with this research is being provided by the Agriculture and Fisheries Department and the

Environmental Protection Department of the Hong Kong Government.



A volcanic xenolith within the graniodorite rock of the Cape d'Aguilar Marine Reserve.

HONG KONG'S DOLPHINS

The first documented sighting of the so called Chinese White dolphin or Chinese Humpback dolphin (*Sousa chinensis*) in the Pearl River estuary was made in 1637. There appears to have been little interest in the population until the late 1980's, when the development of the new airport at Chep Lap Kok threatened the dolphin's habitat. Public attention was drawn to the possible future plight of the dolphins by the World Wide Fund for Nature Hong Kong and The Hong Kong Marine Conservation Society. The Hong Kong Government funded a study of this species in 1993 with a grant of HK\$2 million to the Swire Institute of Marine Science.

The study began in December 1993 and two students, Ms. L.J. Porter and Mr. E.M. Parsons, both registered for a Ph.D. degree, are investigating the biology of the dolphins, their behaviour and ecology and the impacts of pollution and stress upon them. The goal of the project is to determine the best conservation policy for Hong Kong's resident dolphin population.

This research is funded by the Hong Kong Government and is co-ordinated through a Dolphin Working Group chaired by Prof. B. Morton which meets every six months. The Ocean Park Conservation Foundation is a supporter of the project.

From 16 July to 4 October 1995, Ms. C. Hoffmann, a M.Sc. student from the Department of Offshore Engineering, Heriot Watt University, Edinburgh, Scotland, U.K., undertook her degree dissertation research here on a project entitled "Feasibility study

into the proposed sanctuary at Lung Kwu Chau and Sha Chau, Hong Kong for the Chinese White dolphin, *Sousa chinensis*" with the aid of a grant of HK\$47,000 from the World Wide Fund for Nature Hong Kong. The report on this research has now been submitted to WWFHK and, through this organization, to the Hong Kong Government.

A MARINE GIS DATABASE FOR HONG KONG

In 1994, the Education Trust of John Swire and Sons Ltd., approved the establishment of a Third Scholarship in Wetland Ecology at the institute. The aim of the scholarship is to create a GIS Marine Database for Hong Kong, to develop new ways of computer-imaging the data and to formulate a Marine Conservation Management Plan for Hong Kong. The scholarship was awarded to Ms. Winnie S.M. Tang, a graduate in Geography from The University of Hong Kong. The database is being cross-linked with the Reference Collection of Hong Kong's Marine Flora and Fauna now being developed at the institute.

The project has been further supported by a donation of software from Environmental Systems Research Institute Inc., U.S.A. and by the donation of computer hardware from the Caltex Green Fund.

After one and a half years' information compilation and database construction, the Marine GIS Database will be available for use at the institute by early 1996. It contains useful information such as, for example, the distribution and taxonomy of more than 300 molluscan species, the levels of *Escherichia coli* and turbidity of Hong Kong's waters and even the different phases of sea bed dredging and coastal reclamation. The Database has also cross-linked with the Reference Collection of Hong Kong's Marine Flora and Fauna in the museum of the institute. To maintain the currency of the information in the Database, continual input from marine researchers is needed. To help with the input, a standard data log-in form has been prepared and was first used in 1995 at the Fourth International Workshop on the Marine Flora and Fauna of Hong Kong and southern China for new marine ecological information from field work. It is hoped that in the near future, all marine researchers will utilize the Database and provide updated information.



The coastal plant *Lysimachia mauritiana* at the Cape d'Aguilar Marine Reserve.

WORLD WIDE FUND FOR NATURE HONG KONG

Staff of the institute sit on various committees of WWF Hong Kong to help promote local environmental awareness.

In particular, our researches provide information on and advise on management procedures for The Mai Po Marshes Nature Reserve and the proposed Hoi Ha Wan Marine Park and educational materials produced by the Island House Conservation and Field Studies Centre.

THE MARINE BIOLOGICAL ASSOCIATION OF HONG KONG

Founded in 1982, The Marine Biological Association of Hong Kong has some 102 members and holds regular meetings and other events, some of which are held at The Swire Institute of Marine Science. The Association produces its own international journal, *Asian Marine Biology*. The Association's library is housed at the Swire Institute of Marine Science.

Dr. S.Y. Lee is Chairman of the Association, Mr. K.F. Leung is the Membership Secretary and Prof. B. Morton is a Council member and Editor of the association's annual scientific journal, *Asian Marine Biology*.

THE HONG KONG MARINE CONSERVATION SOCIETY

Founded in June 1991, The Hong Kong Marine Conservation Society has some 120 members and holds regular meetings and other events, some of which are held at the Swire Institute of Marine Science. It also produces a Marine Conservation Newsletter.

Ms. L.J. Porter is Membership Secretary of the Society and Mr. E.C.M. Parsons is the Events Secretary.



The shrine to the Goddess of the Sea, Tin Hau, at the Cape d'Aguilar Marine Reserve.

CAPE D'AGUILAR AS HONG KONG'S FIRST MARINE RESERVE

The shores and inshore sea areas around the institute, already designated a Site of Special Scientific Interest, have been recommended by the Marine Parks and Reserves Committee, chaired by Prof. B. Morton with Dr. S.Y. Lee as a member, of the Country and Marine Parks Board, as of sufficient importance to constitute Hong Kong's first marine reserve. On 31 May 1995, Hong Kong's Legislative Council passed the Marine Parks Bill paving the way for the eventual designation of the area as Hong Kong's first marine reserve. In 1995, Shell Hong Kong Ltd. sponsored, with a grant of HK\$84,000, the publication by Hong Kong University Press of a book entitled "*An introduction to the Cape d'Aguilar Marine Reserve, Hong Kong*", co-authored by Prof. B. Morton and Dr. E. Harper (University of Cambridge) to stimulate wider interest in the proposed reserve.

HONG KONG'S 7TH HOI HA
WAN UNDERWATER
PHOTOGRAPHIC SHOOTOUT

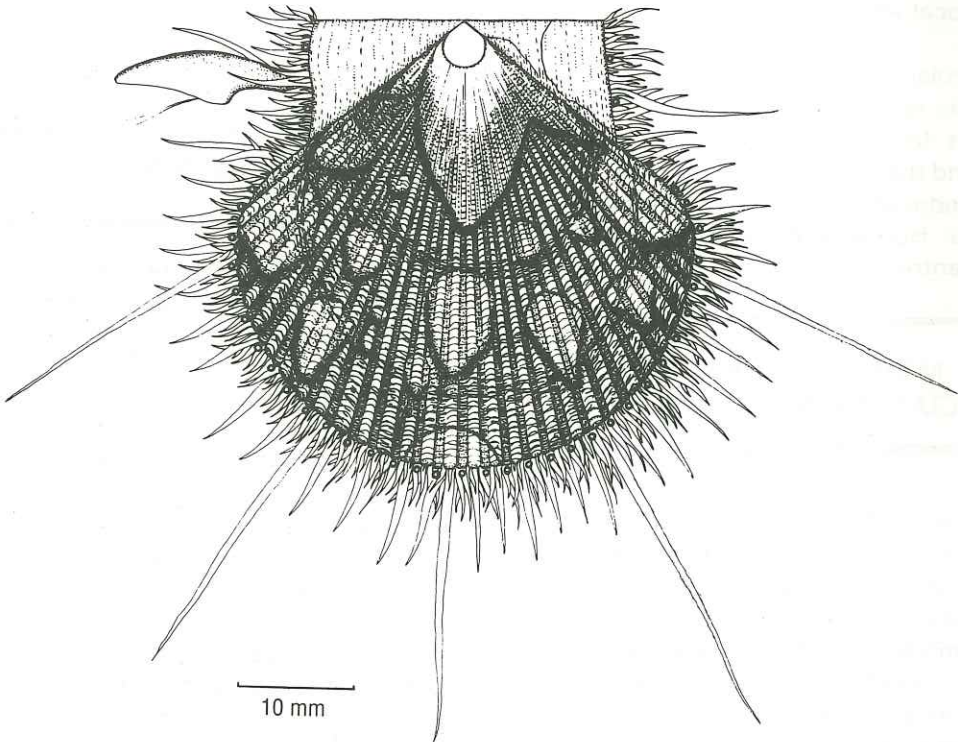
The Seventh Hoi Ha Wan Underwater
Photographic Shootout Competition took



Rubbish, 2 m deep swamps the only known roll-stone beach in Hong Kong at the aptly named Rubbish Bay (Lap Sap Wan) next the Cape d'Aguiar Marine Reserve.

place from the 21-29 October 1995 with Ms. Tracy Clark and Ms. Robyn Cumming participating as the "Coralites" team.

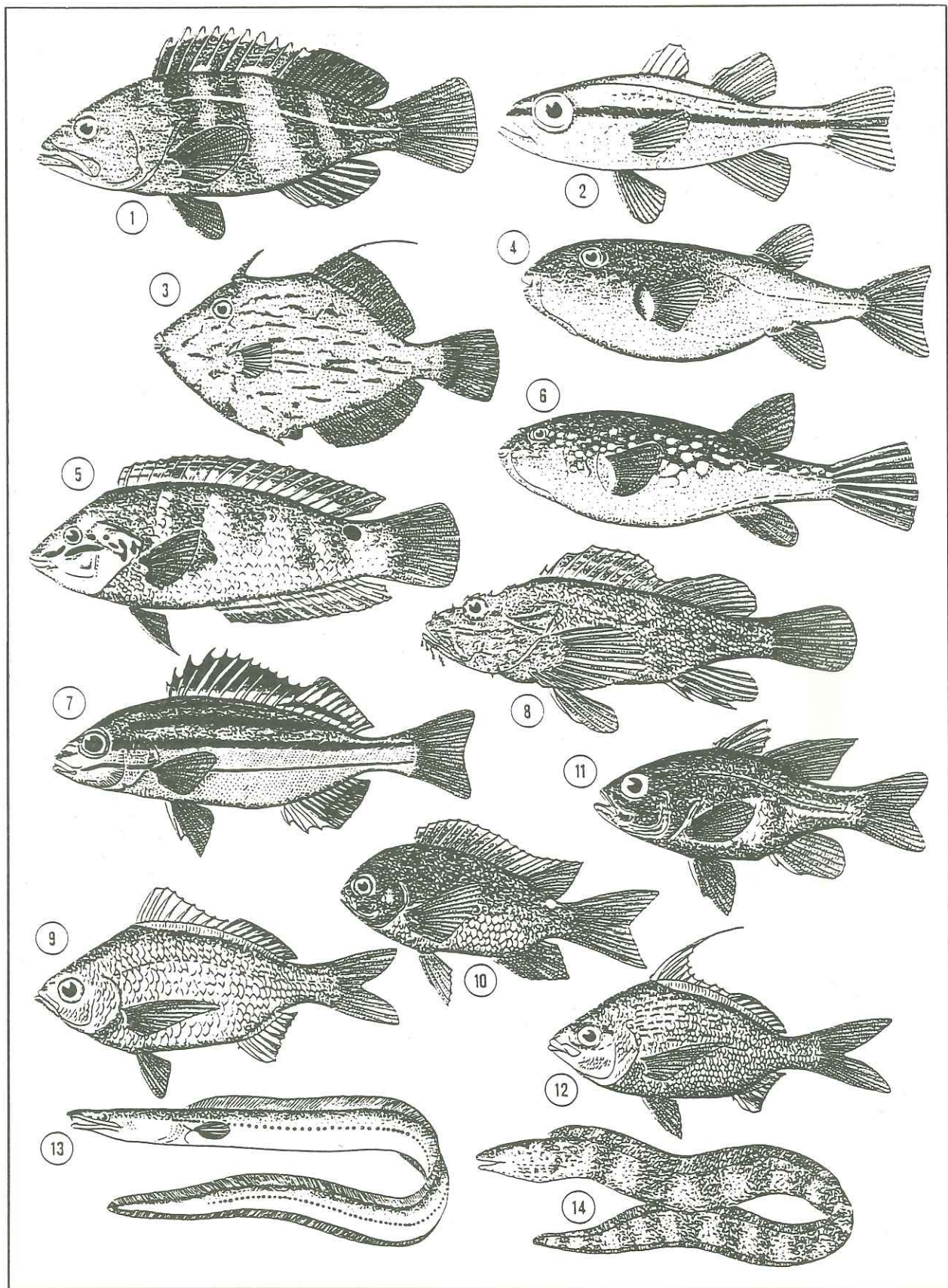
The coral-fringed bay of Hoi Ha in the north-eastern New Territories has been proposed as Hong Kong's first marine park. Sponsored by WWF Hong Kong, The Marine Biological Association of Hong Kong and The Hong Kong Marine Conservation Society, the annual shootout raises public awareness and funds to publish educational material about the bay and Hong Kong's marine life.



Minnivola pyxidatus (Born, 1790) Hong Kong, April 1995.



The Marine Parks Ordinance came into effect from 1 June 1995.
The aerial photograph taken in 1995 shows the Swire Institute of Marine Science
and the proposed Cape d'Aguilar Marine Reserve,
hopefully scheduled for designation this year.



Fishes of the Cape d'Aguilar Marine Reserve. 1. *Epinephelus awoara*; 2. *Apogon quadrifasciatus*; 3. *Monacanthus setifer*; 4. *Lagocephalus inermis*; 5. *Haliichoeres nigrescens*; 6. *Fugu alboplumbeus*; 7. *Pelates quadrilineatus*; 8. *Scorpaenopsis cirrhosa*; 9. *Gerres macrosoma*; 10. *Chromis notatus*; 11. *Apogon taeniatus*; 12. *Gerres filamentosus*; 13. *Muranaenosox cinereus*; 14. *Cymnothorax reticulatus*.

HOW CAN I UNDERTAKE RESEARCH AT THE SWIRE INSTITUTE OF MARINE SCIENCE?

+

FUNDING OPPORTUNITIES

- A. If you have a good honours degree from a recognized tertiary institution, you will be eligible for award of a Studentship by The University of Hong Kong which will allow you to undertake research for either an M.Phil or a Ph.D degree at The Swire Institute of Marine Science. Non native-English speaking students are required to obtain a TOEFL score of 550 points prior to admission. Application forms are available from The Registrar, The University of Hong Kong, Hong Kong.
- B. Overseas students and scientists can apply to the laboratory for award of a Short-Term Visitorship which offers free accommodation at the institute and a modest *per diem* allowance. Such visits are normally for less than one month.
- C. Postgraduate students who are full members of The Marine Biological Association of Hong Kong can apply for award of a research grant that would help them either undertake research at the institute or attend local and overseas conferences.*
- D. The Director can, at his discretion, make a single annual award from an "Intertidal Trust Fund" established in 1982 to a postgraduate or post-doctoral overseas applicant who writes with details of a research project that would enhance understanding of Hong Kong's intertidal ecology by using the facilities of The Swire Institute of Marine Science.
- E. Established in 1992, the Laurence Caplin Scholarship in Marine Biology, offers grants which allow young overseas scientists to undertake research at The Swire Institute of Marine Science for periods of up to 3 months.
- F. Established in 1995, the Cape d'Aguilar Trust Fund offers grants which allow local and overseas students and scientists to undertake short periods of research on the proposed Cape d'Aguilar Marine Reserve, at the Swire Institute of Marine Science.

+ Further details of all such funding possibilities can be obtained from The Director, The Swire Institute of Marine Science, The University of Hong Kong, Cape d'Aguilar, Shek O, Hong Kong.

* Details of this grant can be obtained from: The Secretary, The Marine Biological Association of Hong Kong, c/o The Swire Institute of Marine Science, The University of Hong Kong, Cape d'Aguilar, Shek O, Hong Kong.

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ACKNOWLEDGEMENTS

The Director and staff of the Institute thank the following for their support over the last year.

Sir John Swire (Honorary President), Sir Adrian Swire (Chairman) and the Board of Directors of John Swire & Sons Ltd..

Mr. Peter Sutch, Chairman of the Board of Directors, and staff of John Swire & Sons (Hong Kong) Ltd..

Mr. James Adams (Staff co-ordinator), John Swire & Sons (Hong Kong) Ltd..

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Professor Wang Gungwu, Vice-Chancellor, The University of Hong Kong.

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Mr. M.G. Spooner and staff of the Registry, The University of Hong Kong.

Mr. M. McGraw and staff of the Estates Office, The University of Hong Kong.

Mr. P.B.L. Lam and staff of the Finance Office, The University of Hong Kong.

Mr. I.E. Hart and staff of the Centre for Media Resources, The University of Hong Kong.

Dr. D.J. Mabbott and staff of the Safety Office, The University of Hong Kong.

Dr. D.A. Dudgeon, Dr. I.J. Hodgkiss and staff of the Department of Ecology and Biodiversity, The University of Hong Kong.

Mr. J.W. Bradford, Department of Architecture, The University of Hong Kong.

Mr. A.J. Bentham, Prince Philip Dental Hospital, The University of Hong Kong.

The Chairman and Council of The Hong Kong Marine Conservation Society.

The Chairman and Council of The Marine Biological Association of Hong Kong.

Mr. D.S. Melville, Ms. J. Ruxton and staff of World Wide Fund for Nature Hong Kong.

Staff of Hong Kong Telecom, Head Office and Cape d'Aguilar Stations.

The Director, Dr. Lawrence H.Y. Lee, and staff of the Agriculture and Fisheries Department, Hong Kong Government.

The Director, Dr. S.B. Reed, and staff of the Environmental Protection Department, Hong Kong Government.

The Director and staff of The British Council, Hong Kong.

The Director, Mr. Sham Pak, and staff of The Royal Observatory, Hong Kong.

Mr. E. Yee, (Managing Director), Mr. A. Fretwell, Chief Engineer (Generation) and Mr. F.C.Y. Cheng, (Senior Generation Chemist), The Hongkong Electric Co.Ltd..

Mr. Keith Stott, (Chief Operating Officer) Mr. D. Tai, (Public Affairs Manager) and Dr. A.R. Jack, (Scientific Services Officer), China Light & Power Co.Ltd..

Mr. R.E. Moore, Director, Jardine Matheson Holdings Ltd., Bermuda.

Mr. Charles Convis, Environmental Systems Research Institute, Inc., U.S.A.

Mr. David P.W. Yau, The Hong Kong Jockey Club Charities Trust.

Mr. Michael M.K. Wong, The K.C. Wong Education Foundation.

Mr. Albert Wong, Public Affairs Manager, Shell Hong Kong Ltd..

Mr. S. Leatherwood and staff of Ocean Park Ltd. and the Directors of the Ocean Park Conservation Foundation.

Dr. T.Y. Lee and staff of the University Industrial Centre, The University of Hong Kong.

Paul Hodgson, Dee and John Mulligan, William Muirhead, Bary Russell, Steve Chow, Greg Baynes. (Volunteer divers).