

THE SWIRE MARINE LABORATORY

ANNUAL REPORT FOR 1991

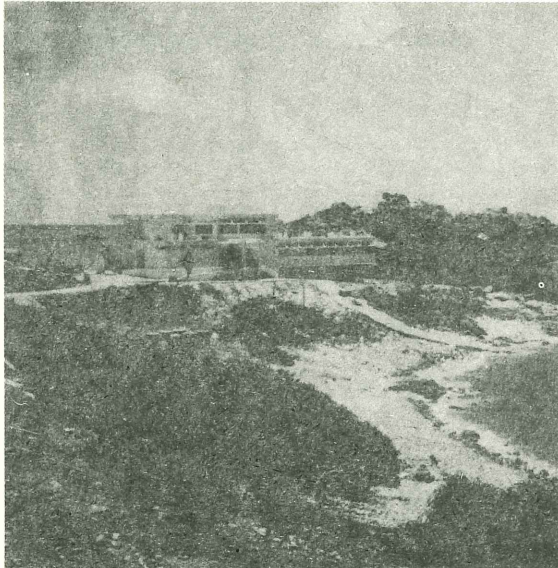


'Hong Kong's Whale' erected at The Swire Marine Laboratory and facing up to typhoon Fred



University of Hong Kong

The Swire Marine Laboratory Annual Report for 1991



Officially opened on the 3 November 1990, The Swire Marine Laboratory has just completed its first year of research activity and development.

This Annual Report covers the period from 3 November 1990 to 2 November 1991.

All enquiries about the station's facilities and activities should be addressed to:

The Director
The Swire Marine Laboratory
University of Hong Kong
Cape d'Aguilar
Shek O, Hong Kong
Tel. (852) 8092179
Fax (852) 8092197
E-mail: SWIREML@HKUCC.BITNET

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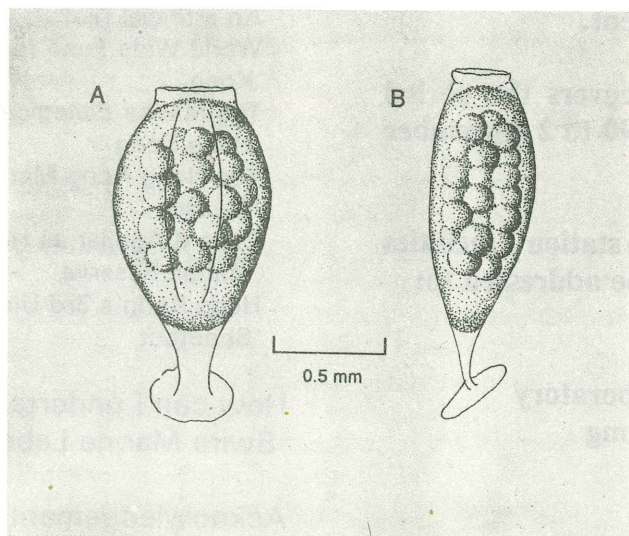
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How can I undertake research at The Swire Marine Laboratory?

Acknowledgements



Egg capsule of *Nassarius mendicus* (California)

THE LABORATORY

The Swire Marine Laboratory is a facility of the University of Hong Kong and was built with a grant of HK\$12.5 million from The Swire Group of Companies. The laboratory was officially opened on the 3 November 1990 by Sir John Swire CBE.

Located on the tip of the Cape d'Aguilar peninsula, Hong Kong Island, the laboratory 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 laboratory provides facilities 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 laboratory can stay in comfortably furnished rooms at The Residence. Capable of accommodating 20 people in single or double rooms, The Residence also has a lounge/dining room, kitchen, sun balcony and spectacular views to the east.

STAFF

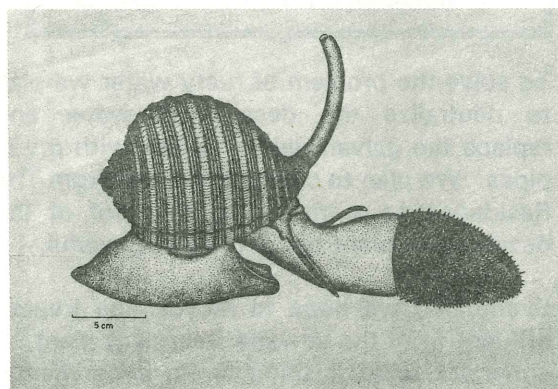
Staff of the laboratory include:
Professor Brian Morton, Director
Dr. S.Y. Lee, Resident scientist
Dr. Gray A. Williams, Resident scientist
Miss Diana K.F. Ip, Secretary
Mr. James C.T. Hui, Technician
Mr. Terry W.F. Fung, Driver/Boatman
Mr. Patrick Chan, Maintenance Officer
Ms. Maggie M.K. Yiu, Cleaner/Caretaker

THE FUTURE

In its first year of operation, the laboratory has faced numerous teething problems but basic research has nevertheless proceeded. The laboratory and its staff look forward to 1992 with confidence.

The ecological research begun in 1991 of the surrounding shores and seas will continue, but additional effort will be placed on the subtidal, in particular the corals that we now know occur in the area. We will continue to work with WWFHK on mangrove ecology at the Mai Po Marshes Nature Reserve and also with WWFHK at Hoi Ha Wan, proposed as Hong Kong's first marine park.

The sea and shores around the laboratory were designated a Site of Special Scientific Interest in 1991 and we hope that they will soon achieve Marine Reserve status allowing us to control public access to the bay, thereby minimizing disturbance and further allowing us to better understand natural versus unnatural changes in water quality and shore ecology. We hope to build an artificial reef near the laboratory to assess its potential for replenishing depleted fish stocks. We also plan to investigate water recycling from our sewage treatment plant as a model for water conservation in Hong Kong.



Tonna zonatum consuming a sea cucumber

NEW DEVELOPMENTS

Hailed as the best development was a gas-fired barbeque at The Residence to make summer evenings more explosive. Following near misses by typhoons Zeke, Amy, Brendan and Fred, plans are being drawn up for window shutters to be installed and the dive store enclosed and dehumidified.

Two new sets of electrophoresis equipment have been purchased.

Water distillation equipment has been installed in the instrument room for laboratory use, but we can also now produce our own filtered drinking water.

The water quality monitoring equipment is now fully functional and we hope in the coming year to link it up to a computer for rapid data retrieval.

PROBLEMS

Our biggest problem is fresh water (or, rather, the lack of it). The desalinators cannot provide sufficient quantities for all our uses and we ran out of water on two occasions in 1991. In addition, the high electrolyte content of the desalinated water is corroding the pipelines making the water rusty. Until recently we had to bring in drinking water.

Numerous other teething problems with the laboratory have been identified, including leaking window frames, wall cracks and condensation from pipes.

PLANNED DEVELOPMENTS

To solve the problem of rusty water we plan to neutralize the desalinated water and replace the galvanized iron pipes with p.v.c. pipes. We plan to collect rainwater from The Residence as a trial using the roof of the desalination plant has proved successful.

Eventually, we hope to recycle the treated effluent from the sewage treatment plant, either for toilet flushing or for experimental purposes, or both.

We plan to turn an area of the Workshop into a Reference Specimen Collection, establish a coral display in the entrance hall and improve the technician's facilities in the main laboratory.

With the establishment of the Reference Collection, all workers at the laboratory will be required to lodge voucher specimens in it to ensure conformity of identification and build up our knowledge of the local marine flora and fauna.



Prof. Morton with students of the Biology Society and the rubbish they collected from the shore around the laboratory.

THE LIBRARY

With the refusal by the Library Committee of the University of Hong Kong to allocate the laboratory a budget and to allow marine titles to be shelved here, the laboratory has had to fall back on its own resources to fulfil one of its basic aims: that of providing a comprehensive marine library for staff, students and visitors. Upon his retirement from the Chair of Zoology, Professor B. Lofts generously donated runs of a number of journals to the laboratory. We also benefit from lodgement at the laboratory 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 110 journals through this exchange and have back runs of most Chinese marine journals.

EVENTS

7 September 1990

15 members of The Marine Biological Association of Hong Kong: to attend an afternoon seminar introducing the laboratory and its facilities.

15 September 1990

3 senior University staff + 21 M.Sc. students in Environmental Management: to attend an orientation.

29 September 1990

20 members of The Marine Biological Association of Hong Kong: to attend an afternoon seminar on recent staff researches.

20 October 1990

200 persons, including students, staff from the Agriculture & Fisheries Department and the Urban Council: for a beach clean up.

22 February 1991

17 third year students from the Departments of Zoology & Botany: to tour the laboratory and clean up the beach.

9 March 1991

27 students from the Biology Society, University of Hong Kong Student Union: to tour the laboratory and clean up the beach.

16 March 1991

18 divers: to attend a marine identification course.

23 March 1991

29 members of The Marine Biological Association of Hong Kong: to attend a seminar on researches undertaken at the Mai Po Marshes Nature Reserve.

28 March 1991

50 students from the Joint School Geography Association: to tour the laboratory.

12 May 1991

11 persons from the South China Diving Club: to dive.

19 May 1991

53 University staff: to tour the laboratory and clean up the beach.

25 May 1991

5 persons from the South China Diving Club: to dive.

28 May 1991

25 senior citizens from the Caritas Social Centre, Ngau Tau Kok: to tour the laboratory.

1-2 June 1991

8 divers: to attend an underwater photography course.

6 June 1991

4 teachers + 21 pupils from Kennedy Road School: for an educational visit.

12 June 1991

7 persons to draft the Constitution of The Marine Conservation Society of Hong Kong.

22 June 1991

18 members of The Marine Biological Association of Hong Kong: to attend an afternoon seminar on rocky shore ecology.

23 June 1991

25 University staff: to attend a diving course organized by the Sports Centre, University of Hong Kong.

26 June 1991

13 administrators from the 7 local tertiary institutions: to attend the 14th Meeting of the Personnel Officers' Group.

27 June 1991

49 persons including University staff and guests: to attend "Hong Kong's Whale" Unveiling Ceremony.

8 July 1991

Staff from ATV: to film the whale skeleton for a children's T.V. programme.

14 July 1991

Mr. C.Y. Lam, Royal Observatory Hong Kong + 50 1971 B.Sc. graduates and family members: to tour the laboratory.

29 July 1991

Electric Shadow Ltd. commissioned by the University of Hong Kong: to produce a promotional film.

5 October 1991

10 students from the Biology Society, University of Hong Kong Student Union: to take photographs of shore life for an exhibition.

OFFICIAL VISITORS

Professor R. Southwood, Vice-Chancellor, University of Oxford, U.K.

Dr. R.S.S. Wu, Victoria University of Technology, Melbourne, Australia.

Dr. G.B. Thompson, Australian Science & Technology Council, Barton ACT, Australia.

Dr. A. Ivanovici, Australian Science & Technology Council, Barton ACT, Australia.

Ms. H. Glover and Ms. C. Keates, British Council, Hong Kong: to tour the laboratory and discuss academic 'links'.

Dr. S. Ramachandran, Anna University, Madras, India.

Dr. Hiroshi Tokuda, Japan Nus Co., Yokohama, Japan.

Mr. Lloyd Neighbors & Mr. L. Sung, U.S. Information Agency, U.S.A.

Dr. P.K.L. Ng, Department of Zoology, National University of Singapore.

Professor Peter Collins, Department of Biological Sciences, University of California, Santa Barbara, U.S.A.

Professor Yuri Yakovlev, Institute of Marine Biology, Vladivostock, U.S.S.R.

Dr. C.D. Dawes, Kelp Farm, Isle of Man, U.K.

Prof. B. McMahon, Department of Zoology, University of Calgary, Canada.

Mr. J. Thoraval, Cultural Counsellor, Consulat General De France came with Prof. Pierre Papon, President of IFREMER: to tour the laboratory and have discussions.

Prof. Dai Jing Chen, President of Shantou University; Professor Jiang Tong, Vice-President of Shantou University and Professor Shen Zong Ying, Dean of Shantou University Medical College were brought by Dr. Rayson Huang and two senior staff of Cheung Kong Holdings (Ltd.) to tour the laboratory.

RESEARCH VISITORS

Dr. R. Huys, State University of Gent, Belgium.

Prof. Zou Ren Lin, South China Sea Institute of Oceanography, Guangzhou, China.

Dr. P.S. Rainbow, Queen Mary & Westfield College, University of London, U.K.

Dr. J.D. Taylor, Museum of Natural History, London, U.K.

Dr. D.S. Jones, Western Australian Museum, Australia.

Mr. A.S.Y. Mackie, National Museum of Wales, U.K.

Dr. E. Harper, Department of Earth Sciences, The Open University, U.K.

Dr. M.W.M. Yipp, Department of Applied Biology & Chemical Technology, Hong Kong Polytechnic, Hong Kong.

Professor Jiang Jinxiang, Third Institute of Oceanography, Xiamen, China.

THE SHORT-TERM VISITORSHIP SCHEME

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

Funded by a loan of HK\$81,695 from the University of Hong Kong, the sale of souvenir items up until 30 September 1991 amounted to HK\$45,550 and the proceeds from the sale of books was HK\$7,095. Despite partial repayment of the loan, the laboratory has been able to fund 3 short-term visitors to the laboratory during 1991.

VISITOR STATISTICS

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

Date	Visitor days.month ⁻¹				
	Postgraduates and postdoctoral fellows	Undergraduates	Local, non H.K.U., visitors	Overseas visitors	Total
September 1990	110	11	1	5	127
October	106	15	0	7	128
November	104	23	0	27	154
December	120	20	1	15	156
January 1991	123	25	0	6	154
February	100	16	0	3	119
March	108	5	0	11	124
April	104	0	0	22	126
May	117	0	0	12	129
June	100	9	25	14	148
July	94	68	13	59	234
August	110	47	7	68	232
September	122	8	8	17	155

At present there are 2 postdoctoral fellows and 12 postgraduate students undertaking research at the Laboratory; of these 6 reside in the Residence.

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 laboratory. The Residence, comprising ten single and double 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.

Residence nights.month⁻¹

Date	Post-graduate Students	HKU Staff	Local, non-H.K.U., visitors	Overseas researchers/Visitors	Total	%
September 1990	152			3	155	25.8
October	151				151	25.2
November	151	2		65	218	36.3
December	159				159	26.5
January 1991	147	2		5	154	25.7
February	91	3		2	96	16.0
March	90	5			95	15.8
April	122		8		130	21.7
May	123	3			126	21.0
June	120	2	8	40	170	28.3
July	121		70	78	269	44.8
August	90		7	75	172	28.7
September	150			5	155	25.8

Note: The % figures represent the proportion of the total available bed spaces, i.e., 20 bed spaces x 30 nights.month⁻¹ = a total of 600 residence nights.

ACADEMIC ACTIVITIES

STAFF

Professor B. Morton

Life histories of *Septifer virgatus* and *Lasaea nipponica* on rocky shores at Cape d'Aguilar.

Dr. S.Y. Lee

Ecology of Mai Po Marshes Nature Reserve.

Dr. G.A. Williams

Algae-herbivore interactions on the Cape d'Aguilar shores.

POST-DOCTORAL FELLOWS

Dr. L.K.Y. Tong (Croucher Foundation Fellowship)

Ecology of larval settlement by the mussel, *Septifer virgatus*.

Dr. R.G. Ong-Che (with B. Morton)

1. Seasonal and spatial variations in the subtidal benthic community of Tai Tam Bay.
2. Ecology of the Cape d'Aguilar mussel community.
3. Structure and dynamics of an intertidal sand flat at Tai Tam.

HIGHER DEGREE STUDENTS

Ms. Liu Jianhua (Ph.D)

1. The ecology of Hong Kong limpets.
2. With B. Morton. The impacts of high summer temperatures upon the mortality of *Septifer virgatus* and *Tetraclita squamosa*.

Ms. Cha Mei Wah (Ph.D)

Impacts of pollution and predation upon the population dynamics of *Tapes philippinarum* at Starfish Bay, N.T.

Mr. Chiu King Tung (Ph.D) (John Swire Scholar)

Pollution of the Mai Po Marshes, Nature Reserve.

Ms. Carmen Anderson (Ph.D)

The ecology of the Mai Po mangrove.

Mr. Llewellyn Young (Ph.D)

Seasonal habitat use by the Chinese Pond Heron at the Mai Po Marshes Nature Reserve.

Mr. A. Leung (Ph.D) (Fisheries Officer, Agriculture & Fishery Department.)

Fish community structure in Lobster Bay, Cape d'Aguilar.

Ms. Winnie Kwok (M.Phil.)

Interactions between mangroves and grapsid crabs at the Mai Po Marshes Nature Reserve.

Mr. Timothy Wong (M.Phil.)

The effects of heavy metal pollution on the physiology of the mussels *Perna viridis* and *Septifer virgatus*.

NEW ARRIVALS

Mr. S. Kaehler arrived in late September to read for a higher degree on encrusting algae with Dr. G.A. Williams.

Ms. Alice Chan arrived in October to read for a higher degree on coastal plankton with Prof. B. Morton.

Mr. P. Collinson will arrive in October to read for a higher degree on coral ecology with Prof. B. Morton.

Mr. W.K. Wong will start research at the laboratory for a higher degree on the sewage treatment plant with Dr. Y.B. Ho (Department of Botany).

Ms. K. Harper will arrive in October to read for a higher degree on herbivore behaviour with Dr. G.A. Williams.

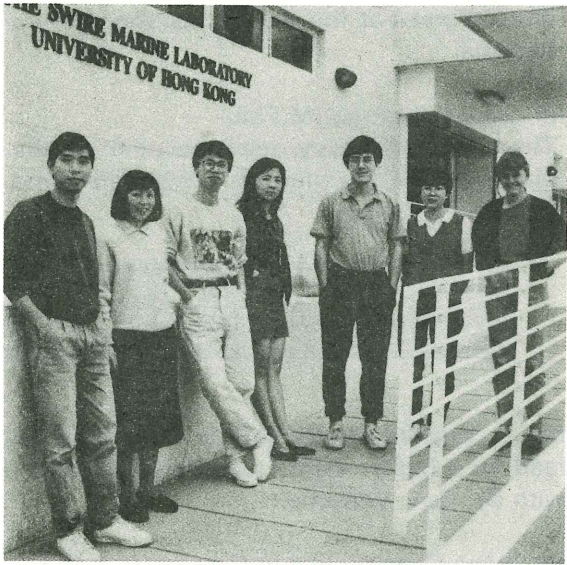
UNDERGRADUATES

During 1990-1991, the following University of Hong Kong students have conducted their final year projects at the laboratory:

Miss Chan Yat Kwan: intertidal grazers.
Mr. Hau Chi Hang: sea urchin grazing.
Miss Siu Fung Ching: hermit crabs.
Mr. Wong Yuk Keung: rock pool crabs.

During 1991-1992, the following University of Hong Kong students will commence work on their final year projects at the laboratory:

Mr. Kwok Hon Kai: grazers of crustose algae.
Mr. Mak Yiu Ming: TBT in dogwhelks.
Mr. Lawrence M.L. Tsui: mussel physiology.



Dr. S.Y. Lee (left), with post-doctoral fellows and postgraduate students working at the laboratory. From left to right: Dr. R.G. Ong-che, Mr. Chiu King Tung, Ms. Liu Jianhua, Mr. Llewellyn Young, Dr. L.K.Y. Tong and Ms. Carmen Anderson.

SUMMER STUDENTS

The following undergraduates from Great Britain undertook summer projects at the laboratory.

Mr. Michael Coombes,
School of Ocean Sciences,
University of Wales, Bangor.
(To undertake research with Dr. S.Y. Lee).

Miss Lindsay Porter,
Zoology Department,
University of Glasgow.
(To undertake research with Prof. B. Morton).

Miss Susan Hawkins,
Biology Department,
University of Newcastle-upon-Tyne.
(To undertake research with Dr. G.A. Williams).

The following two students undertook on-job training at the laboratory during the summer.

Miss Chan Pui Yee and Miss Ng Wing Bun,
Department of Applied Biology & Chemical
Technology,
Hong Kong Polytechnic,
Hong Kong.

STAFF TRAINING

Dr. S.Y. Lee

- 1) Unesco Workshop on Curriculum Development, Jakarta, March 1990.
- 2) Certificate course in SCUBA diving (BSAC).
- 3) United States Government Visitorship to the USA to meet wetland scientists, July - August 1991.

Dr. G.A. Williams

- 1) Unesco Workshop on Curriculum Development, Jakarta, March 1990.
- 2) Participant. QUEST: Workshop on Quantitative Underwater Techniques, Hawaii, June 1991.

Mr. Patrick Chan

- 1) Certificate course in SCUBA diving (NAUI Open SCUBA diver I).
- 2) St. John's Ambulance Brigade, first aid training.

Mr. James Hui

Certificate course in SCUBA diving
(NAUI Open SCUBA diver I).

Mr. Terry Fung

- 1) Certificate course in SCUBA diving (NAUI Open SCUBA diver I).
- 2) Vehicle maintenance course.

STAFF ACTIVITIES

Professor B. Morton

Member: Executive Council, Executive Committee & Trustee of WWFHK.

Chairman: WWFHK Education Committee.

Chairman: WWFHK, Hoi Ha Wan Committee.

Member: WWFHK, Mai Po Management & Development Committee.

Member: WWFHK, Island House Management & Development Committee.

Member: WWFHK, Projects Committee.

Chairman: The Dumping at Sea Act 1974 Appeal Board.

Member: Water Pollution Control Ordinance (Cap 358) Appeal Board.

Member: Endangered Species Advisory Committee, Hong Kong Government.

Member: Agriculture & Fisheries Advisory Committee (Aquaculture sub-Committee), Hong Kong Government.

Chairman: The Marine Biological Association of Hong Kong.

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

Member: United Nations Environment Programme: United Kingdom Committee.

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*.

Dr. S.Y. Lee

Member: the Hong Kong Government Working Group on Marine Parks & Marine Reserves.

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

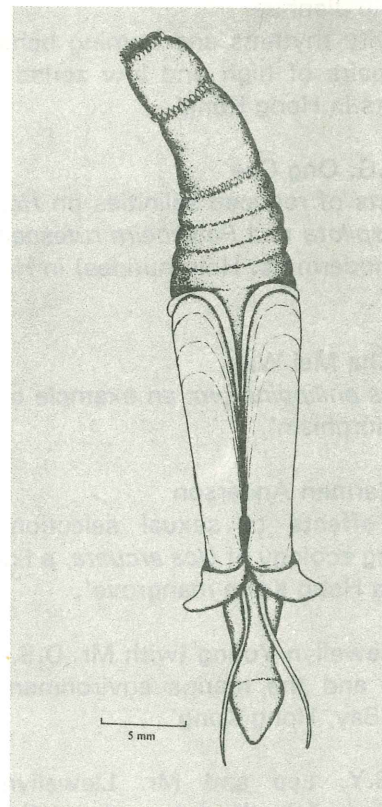
Membership Secretary: The Council of The Marine Biological Association of Hong Kong.

Member: WWF Hong Kong: Hoi Ha Wan Committee.

Dr. G.A. Williams

Member: WWF Hong Kong Hoi Ha Wan Underwater Shootout Committee.

Member: The Council of The Hong Kong Marine Conservation Society.



Solen strictus

LOCAL CONFERENCES

To celebrate the opening of The Swire Marine Laboratory, between 28 October to 3 November 1990, local and overseas students and scientists attended a Conference at the University of Hong Kong entitled 'The Marine Biology of Hong Kong and the South China Sea'.

The following staff and students from the laboratory attended and presented papers:

Professor B. Morton (with Professor J.C. Britton)
'Are there obligate marine scavengers?'

Dr. S.Y. Lee

1. 'Leaf choice of sesarminae crabs *Chiromanthes bidens* and *C. maipoensis* in a Hong Kong mangal'.
2. 'Invertebrates new to science recorded from the Mai Po Marshes, Hong Kong'.

Dr. G.A. Williams

'The relationship between herbivorous molluscs and their food supply on moderately exposed Hong Kong shores'.

Ms. Liu Jianhua

'Activity rhythms and homing behaviour by two pairs of high and low zoned intertidal limpets in Hong Kong'.

Dr. R.G. Ong Che

'Effects of reduced salinities on *Holothuria leucospilota* and *Polycheira rufescens* (Echinodermata: Holothuridea) in Hong Kong'.

Ms. Cha Mei Wah

'*Tapes philippinarum*: an example of shell polymorphism'.

Ms. Carmen Anderson

'The effects of sexual selection on the feeding ecology of *Uca arcuata*, a fiddler crab from a Hong Kong mangrove'.

Mr. Llewellyn Young (with Mr. D.S. Melville)
'Birds and the marine environment around Deep Bay, Hong Kong'.

Dr. S.Y. Lee and Mr. Llewellyn Young participated in the International Conference on Conservation and Management of Tropical Inland Waters: Problems, Solution and Prospects, University of Hong Kong, September 5-9, 1991.

OVERSEAS CONFERENCES

Professor B. Morton

January 1991: Fourth International Marine Biological Workshop on the Marine Flora and Fauna of Rottnest Island, Western Australia.

January 1991: Meeting of WWF International, Marine Programme Planning Committee, London, U.K.

June - July 1991. Co-organizer, Symposium on Future Directions for Marine Bivalve Research, American Malacological Union, University of Berkeley, California, U.S.A.

July 1991. First International Workshop on the Bivalvia, Moss Landing Marine Laboratory, California, U.S.A.

July - August 1991. Second International Workshop on the Marine Flora and Fauna of the Azores, University of the Azores, Ponta Delgada, Sao Miguel, Azores, Portugal.

Dr. S.Y. Lee

February 1991: Conference and Official Launch of Wetland Link International, Wildfowl and Wetlands Trust, Slimbridge, U.K.

Dr. G.A. Williams

September 1990: Co-organizer, 'Plant-animal interactions in the marine benthos'. University of Liverpool, U.K.

September 1990: First Conference on the ecology of Lough Hyne. University of Cork, Ireland.

September 1990: 3rd International Symposium on littorinid biology. Dale Fort, U.K.

May 1991: XVII Pacific Science Congress, Honolulu, Hawaii.

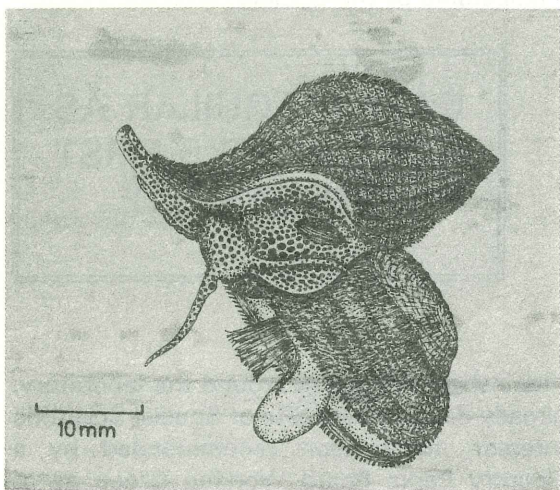
Ms. Liu Jianhua

September 1990: 'Plant-animal interactions in the marine benthos'. University of Liverpool, U.K.

OTHER ACTIVITIES

HOI HA WAN FILM

During August, Mr. M. Pitts, used the laboratory's aquarium facilities to commence filming of a 30 minute educational documentary about Hoi Ha Wan. He will resume filming in October 1991.



Linatella caudata consuming *Barbatia virescens*

THE CAPE D'AGUILAR CANNON

On 28 March, the Cape d'Aguilar Cannon was raised by Dr. G.A. Williams, Ms. J. Ruxton and Mr. M. Pitts and has been treated by Terry Fung and set up as a display in the main entrance to the laboratory.

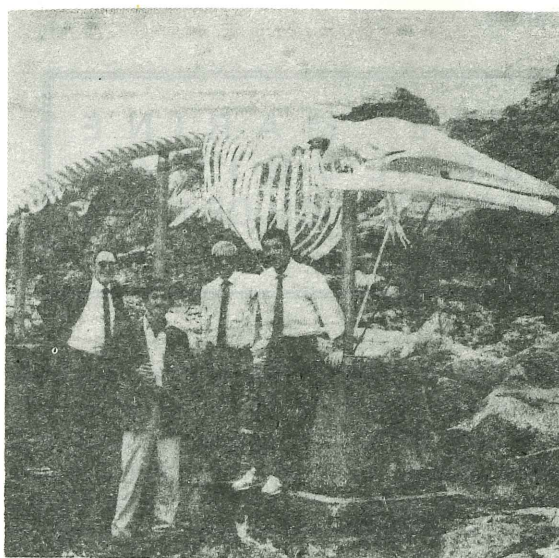
'HONG KONG'S WHALE'

On the 12 April 1955, a baby Common rorqual, *Balaenoptera physalus*, was discovered floating among wharf piles in Victoria Harbour. Staff and technicians of the then Department of Biology at the University of Hong Kong prepared a skeletal display of the whale which, despite its age of approximately only 45 days, was over eight metres long and weighed some four and one half tons.

Over the intervening years, the skeleton deteriorated to such an extent that the decision was made to conserve it and to put it on display in both a more natural posture and at a more appropriate locality. The Swire Marine Laboratory was chosen as the site for the whale's permanent open-air display.

Through the generosity of Ciba-Geigy (Hong Kong) Ltd., each bone has been impregnated with an epoxy resin, such work being carried out in the Dental Technology Unit of The Prince Philip Dental Hospital. A new, stainless steel, supporting system has been designed by staff of the Department of Architecture and fabricated by The University Industrial Centre. The skeleton has been finally protected in white waterproof paint generously donated by Winsome Paints Co. Ltd.

When unveiling the whale display, Mrs. M. Ketterer, Honorary Executive Director, WWFHK, expressed the hope that the baby whale would symbolize a renewed vigour in Hong Kong's efforts to conserve its coastal waters and that the newly-founded Hong Kong Marine Conservation Society would spearhead, with WWFHK and The Marine Biological Association of Hong Kong this effort.



Members of the 'Hong Kong's Whale' reconstruction team. From left to right, Mr. B.F. Will, Mr. P.T.T. Kou, Mr. A.J. Bentham and Mr. J.W. Bradford.

AN ARTIFICIAL REEF

The laboratory has begun a co-operative research programme with the Fisheries Conservation Branch of The Agriculture & Fisheries Department of the Hong Kong Government to design and install an experimental reef just offshore from the laboratory. Mr. A. Leung (Fisheries Officer, A.F.D.) has registered for a Ph.D. degree at the University of Hong Kong to take up the challenge of initiating this project.

An approach has been made to China Light & Power Co. Ltd. and Hong Kong Electric Co. Ltd. to join the laboratory in this project since we anticipate the reef will be made of PFA blocks.

WORLD WIDE FUND FOR NATURE HONG KONG

Staff and students of the laboratory sit on the numerous committees of WWFHK to help promote environmental awareness in Hong Kong.

In particular, our research efforts are geared towards providing information on and management procedures for The Mai Po Marshes Nature Reserve, Hoi Ha Wan SSSI and educational material 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 160 members and holds regular meetings and other events, some of which over the last year have been held at The Swire Marine Laboratory. The Association produces its own international journal, *Asian Marine Biology*. The Association's library and archives are housed at The Swire Marine Laboratory. Staff of the laboratory are elected members of the Association's Council and organize its numerous activities.

THE HONG KONG MARINE CONSERVATION SOCIETY

At its foundation meeting on 24 June 1991, The Hong Kong Marine Conservation Society enrolled 61 members, defined its objectives and ratified a Constitution that would increase support for marine conservation of Hong Kong's waters.

Dr. G.A. Williams has been elected to Council membership of the Society.

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

The inshore sea areas around the laboratory, already designated a Site of Special Scientific Interest, have been recommended by a Country Parks Board Working Group as of sufficient importance to constitute Hong Kong's first Marine Reserve.

Dr. S.Y. Lee is a member of the Working Group.

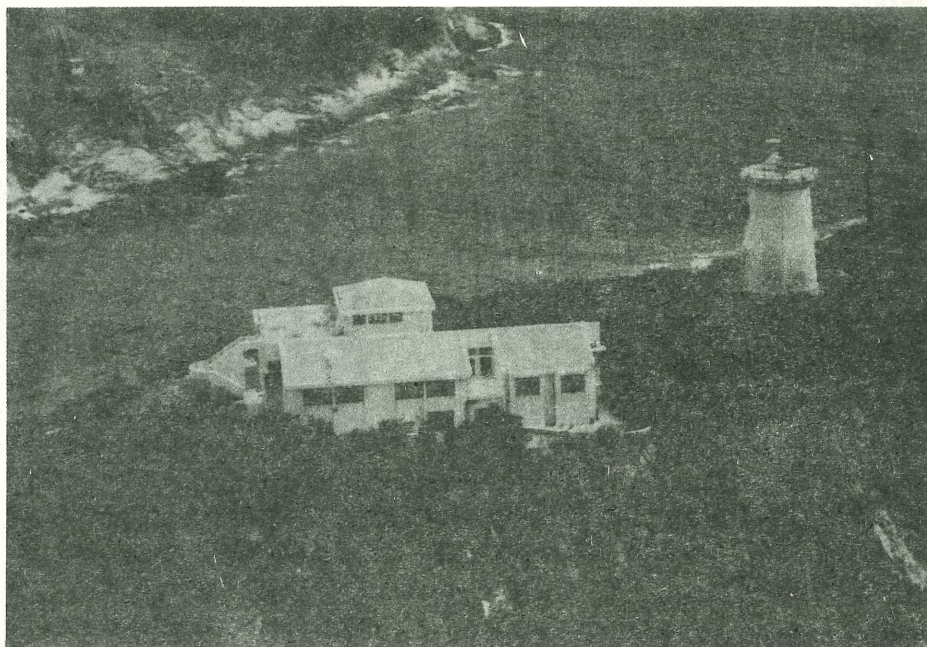
HONG KONG'S 3RD UNDERWATER SHOOTOUT

A diving team of Dr. G.A. Williams and Mr. M. Pitts participated in the 1991 Underwater shootout to raise funds for Hoi Ha Wan. This coral-covered bay in the north-eastern New Territories has been proposed as Hong Kong's first Marine Park. Sponsored by WWFHK and The Marine Biological Association of Hong Kong, the annual shootout raises public awareness and funds to publish educational material about the bay and Hong Kong's marine life. On the 31 October 1991, the winners of the shootout received their prizes from H.R.H. Prince Philip, the Duke of Edinburgh, President of WWF International.

HOW CAN I UNDERTAKE RESEARCH AT THE SWIRE MARINE LABORATORY?

FUNDING POSSIBILITIES

- 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 Ph.D degree at the laboratory.
- B. Overseas students and scientists can apply to the laboratory for award of a Short-Term Fellowship which offers free residence at the laboratory and a modest per diem allowance. Such visits are normally for less than one month.
- C. Postgraduate students who are members of The Marine Biological Association of Hong Kong can apply for award of a research grant that would help them undertake research at the laboratory, or attend local and overseas conferences.*
- D. The Director can, at his discretion, make a single annual award from an "Intertidal Trust Fund" to a 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 Marine Laboratory.



The Residence

* Details of this grant can be obtained from: The Secretary, The Marine Biological Association of Hong Kong, c/o Department of Zoology, University of Hong Kong, Hong Kong.

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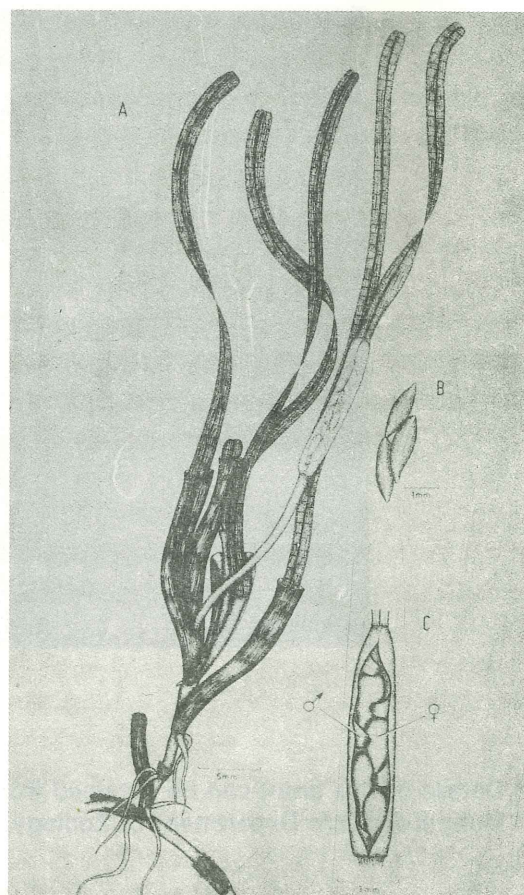
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Zostera nana