LIZARD ISLAND RESEARCH STATION

Newsletter No 6 February 79 to May 80

The 25 KVA diesel generator, the 12 cfm compressor and fresh water pressure system installed the previous year continue to work well and satisfy the growing demands on them.

LABORATORIES

The lab block has been completely painted inside. New benches, with sinks, drawers and cupboards, have been installed in the wet and dry labs. The louvre windows in the dry lab have been replaced with fixed windows and the lab (along with the dark room) is now air conditioned.

More equipment has been acquired including a Wild M400 stereo microscope with MPS45 photoautomat, a 0.5 cub. metre refrigerator, a Sorvall bench centrifuge (courtesy of CSIRO Division of Food Technology) and an electrophoresis gel drying cabinet (courtesy of the Australian National University). Other lab equipment purchased includes a second all-glass still, a pH selective ion meter, hot plate/stirrer, two rotary evaporators, a thermoregulator/circulator and an electronic top loading balance. A diamond-tipped circular saw and a band saw have been acquired to cut coral samples.

HOUSES

Five electric 2 door freezer/refrigerators have been purchased to replace the kerosene fridges which were very inefficient (2/3 litre of diesel fuel generates sufficient power for one electric fridge per day, compared with 2 litres of kerosene per fridge per day). Ceiling fans have been installed in the maintenance officer's house and the visitor's house. Five Solar Hot water systems have been erected on the houses, with two spares for the future bungalows. Extra channels have been added to the radio transceiver and a new antenna system installed – the Station is now connected to the telephone network through the Royal Flying Doctor Base in Cairns. Outgoing telephone calls are now possible, but only telegrams, not phone calls, can be received. Although this is not perfect, it is a considerable improvement on our

Plans have been completed (and approved by the Queensland National Parks and Wildlife Service) and sites marked out for the construction of four A-frame bungalows - for which sufficient funds have been promised by the Lizard Island Reef Research Foundation. These will be self-contained with 4 beds each and will be situated among the Casurinas behind the beach (one of these will be permanent accommodation for the boat skipper - a new appointment to be made when our work boat materialises).

AQUARIUM SYSTEM

The outdoor aquarium system has been extended with a new area under 50% shade cloth and four 2000 litre fibreglass tanks installed. These are more suitable for holding larger animals such as crown of thorns starfish (see John Lucas' project) or reef fish (see Ernie Grant's project). Extra 100 litre glass aquaria have also been fabricated.

A 75mm polythene inlet pipe for the salt water pumps has been installed, and reaches 150 metres out over the reef in front of the Station to where the inlet is covered at all tides. The pump house has been re-located with the pumps (2) placed lower, relative to sea level. Salt water can now be pumped at any stage of the tide and can be provided continuously if the need arises.

BOATS

The Great Barrier Reef Marine Park Authority has provided a 5 metre aluminium, centre console, dive boat powered by twin 25HP Evinrude outboards. This brings the Station's boat complement to seven.

Funds in the order of \$100,000 are expected to be available within the near future for the work boat and Mr. Lock Crowther, a naval architect in Sydney specializing in multihulls, has been commissioned to design the vessel. She is to be a $13\frac{1}{2}$ metres (45°) long, $6\frac{1}{2}$ metres (21') beam aluminium cataramaran with both motor and sailing capabilities. She will have a single 80 BHP diesel engine driving twin screws through hydraulic transmission units, plus a hydraulic trawling winch with drum capacity of 1500 metres wire. The boat will be used for open-ocean work outside the Barrier Reef, as well as dredging and trawling inside the reef. She will have a speed of up to 12 knots under sail and 9 knots under power, reducing to 7 knots when laden with 6 tonnes of cargo (including 5000 litres of diesel fuel which will be carried in bulk from Cairns). Up to six scientists can be taken on extended trips and 10 on day excursions to nearby reefs. It is planned that the keel will be Taid about natabase 1000 I sid about October 1980.

GENERAL

The old steel box trailor has been replaced by an aluminium trailor. A long wheel base, covered, diesel landrover has been acquired to supplement the tractor and take over the collection of passengers and goods from the airstrip (which it does in half the time taken by the tractor and ten times the comfort).

WORK IN PROGRESS

Materials are on hand to enclose one third of the eastern side of the lab verandah. This will be made into a wet lab and the original wet lab converted into a biochemistry/physiology lab.

Funds are also anticipated as being available shortly and plans are being developed to extend the lab block; install a -20° C walk-in cold room; add more specialised equipment to the laboratories, construct a wash room (= ablutions block) near the work shop; and hopefully to extend the floor and roof of the workshop to provide a covered area for work on boats and outboards.

STAFF

Mr. Trevor Barnes (and his wife Val) resigned as Maintenance Officer in December 1979 after two years' service. Trevor has returned to his former job with the Commonwealth Department of Productivity in Sydney, from which he had taken 2 years leave without pay. Val has returned to the teaching staff at Macquarie University.

Viv Dawson (accompanied by his wife Lil), a marine engineer from Cairns, provided excellent continuity for 3 months until the appointment of Alan Young as Maintenance Officer on 19 February 1980. Alan is accompanied by his wife Jenny, his $2\frac{1}{2}$ year old son, Paul (who is training to be a Director!) and a new addition, Adam, who is one month old.

Lois Goldman has been appointed as part-time secretary, the position having been made official from September 1979

MEETINGS

During the 15 months since the last newsletter was issued, there were three meetings of the Lizard Island Executive (March 16 in Sydney, July 29 at Lizard Island, and January 20 1980 in Sydney), plus a full meeting of the Trustees in Brisbane on November 8, 1979. The Director also attended a meeting of the combined reef research facilities at the University of Queensland on November 8, and a Meeting of the Great Barrier Reef Communities on November 9, 1979.

In addition, the Director participated in a two-day seminar at Port Stephens, N.S.W. organised by the Australian Society of Fish Biologists, (August 18-19); a seminar on growth and development of coral reefs at the Australian Institute of Marine Science (27-30 August); and a Workshop on monitoring by the Great Barrier Reef Marine Park Authority (30-31 August).

PUBLICATIONS

The following papers result from work done wholly or in part at the Lizard Island Research Station. They have appeared since the issue of Newsletter No. 5.

BENSON, A.A. and R.E. SUMMONS, 1980

Arsenic accumulation in marine invertebrates.

Science (in press).

BURGESS, W.E. and H.R. AXELROD, 1976.

Fishes of the Great Barrier Reef Pacific Marine Fishes
Book 7. T.F.H. Publications, N.Y. pp 1659-1925

CHACE, F.A. Jr. and D.E. BROWN, 1978

A new polychelate shrimp from the Great Barrier Reef of Australia and its bearing on the family Bresiliidae (Crustacea: Decapoda: Caridea).

Proc. Biol. Soc. Wash. 91(3): 756-766

HARVEY, N., 1977

Application of shallow seismic refraction techniques to coastal geomorphology: a coral reef example.

Catena, 4: 333-339

HARVEY, N., P.J. DAVIES and J.F. MARSHALL, 1979

Seismic refraction - a tool for studying coral reef growth.

B.M.R.J. Aust. Geol. Geophys. 4(1979: 141-147)

HOESE, D.F. and G.R. ALLEN, 1977

<u>Signiquobius</u> <u>biocellatus</u>, a new genus and species of sand-dwelling coral reef gobiid fish from the western tropical Pacific.

Jap. J. Ichthyol. 23(4): 199-207.

HOESE, D.F. and P. FOURMANOIR, 1978

<u>Discordipinna griessingeri</u>, a new genus and species of gobiid fish from the tropical Indo-West Pacific.

<u>Jap. J. Ichthyol.</u>, 25(1): 19-24

HUTCHINGS, P.A. and P.B. WEATE (in press)

Experimental recruitment of endo-cryptolythic communities at Lizard Island, Great Barrier Reef: Preliminary results.

Mem. N. Z. Oceanogr. Inst.

Mem. N.Z. Oceanogr. Inst.

MACURDA, B. and D. MYER, 1975

Crinoids of the Great Barrier Reef Region

Geol. Soc. Amer. 1975 program with abstracts.

MYER, D.L., 1979

Length and spacing of the tube feet in Crinoids (Echinodermata) and their role in suspension feeding.

Mar. Biol. 51: 361-369.

MORIARTY, D.J., 1979

Biomass of suspended bacteria over coral reefs.

Mar. Biol., 53: 193-200

MORTON, B. 1978

The diurnal rhythm and the process of feeding and digestion in <u>Tridacna</u> <u>crocea</u> (Bivalvia: Tridacnidae)

J. Zool., Lond., 185: 371-387

MORTON, B., 1979.

The biology and functional morphology of the coral-sand bivalve $\underline{\text{Fimbria}}$ $\underline{\text{fimbriata}}$ (Linnaeus, 1958).

Rec. Aust. Mus., 32(11): 389-420

OLAFSON, R.W., 1978

Effect of agricultural activity on levels of organochlorine pesticides in hard corals, fish and molluscs from the Great Barrier Reef.

Marine Environ. Res. 1(1978): 87-107

PONDER, W.F. and E.K. YOO, 1976

A revision of the Australian and tropical Indo-Pacific Tertiary and recent species of <u>Pisinna</u> (= <u>Estea</u>) (Mollusca: Gastropoda: Rissoidea).

Rec. Aust. Mus., 30(10): 150-247

PONDER, W.F. and E.K. YOO, 1977

A revision of the Australian species of Rissoellidae Mollusca: Gastropoda).

Rec. Aust. Mus., 31(4): 133-185

PONDER, W.F. and E.K. YOO, 1978

A revision of the Eatoniellidae of Australia (Mollusca, Gastropoda, Littorinacea).

Rec. Aust. Mus., 31(15): 606-658

RUSSELL, B.C., G.R. ALLEN and A.R. LUBBOCK, 1976

New cases of mimmicry in marine fishes.

J. Zool, Lond. 180: 407-423

SMITH, B.J., 1979

Notes on two species of Thytidid snails from Lizard Island, North Queensland.

Rec. Aust. Mus., 32(12): 421-434.

STEENE, R.C., 1978

Butterfly and Angelfishes of the world. Volume 1 Australia.

A.H. and A.W. Reed, Sydney. 144pp

STEENE, R., 1980

Stallions of the Sea.

Aust. Nat. Hist., 19 (12): 398-407

WILSON, B.R., 1979

A revision of Queensland Lithophagine mussels (Bivalvia, Mytilidae, Lithophaginae).

Rec. Aust. Mus., 32(13): 435-489

VISITORS

From March 1979 through May 1980, ninety-seven scientists and assistants worked at the Station, eight of whom visited more than once; forty were from overseas institutions. In addition, there were several spouses and children visiting when space permitted, and a number of V.I.P. visitors (see below). There was an average of 5.8 scientists/assistants working at the Station throughout the 15 months.

The following is a list of visitors, their affiliation and their projects:

POSTGRADUATE STUDENTS

- Mr Hugh Sweatman, Macquarie University, Sydney. 5 trips totalling 22 weeks. Studies on recruitment of fishes to natural reef isolates. Later commenced Ph.D. project on biology of lizard fishes.
- Ms Jan Aldenhoven, Macquarie University, Sydney. 4 trips totalling 30 weeks. Ph.D. project on social behaviour and feeding in the angelfish Centropyge bicolor.
- Mr Brian Lassig, Macquarie University, Sydney. 5 trips totalling 30 weeks. Ph.D. project on the effects of large predatory fish on the fish community structure of natural reef isolates.
- Mr Bill Gladstone, Macquarie University, Sydney. 2 trips totalling 7 weeks. Ph.D. project on social biology of butterflyfishes.
- Mr Graham Edgar, University of Tasmania, 3 weeks. Ph.D. project on the structure of macroscopic algae and associated animal communities.
- Mr Gordon Anderson, Australian National Parks & Wildlife Service and Macquarie University, 2 weeks. Ph.D. project on recruitment and colonization of artificial reefs in the lapoon.

- Ms Barbara Kojis, University of Queensland, Brisbane, 9 days. Ph.D. project on reproduction in hermatypic corals.
- Mr Howard Silver, University of Queensland, Brisbane, 2½ weeks.

 M.Sc. project on gut evisceration in holothurians, and their taxonomy.
- Mr Greg Stroud, James Cook University, Townsville, Qld, 34 weeks. Completion of Ph.D. project on biology of sand weaver fishes (Parapercidae).
- Ms Kim Bryceson, Australian National University, Canberra. 4
 weeks. Ph.D. project on the neurobiology and visual mechanisms
 in Crustacean eyes.
- Mr Jasper Trendall, University of Western Australia, Perth. 1 week. Ph.D. project on population ecology of coral reef fishes.
- Mr Jamie Oliver, James Cook University, Townsville, Qld. 1 week.

 M.Sc. project on reproductive biology of corals (with Yosi
 Loya).

AUSTRALIAN SCIENTISTS

- Dr Dave Moriarty, CSIRO Division of Fisheries and Oceanography, Cleveland. 10 days. Collecting sediments and gut contents of Holothurians in order to determine bacterial biomass.
- Dr Jim Redfield, CSIRO Divison of Fisheries and Oceanography, Cleveland. Population genetics of coral reef fishes.
- Professor Frank Talbot, Macquarie University, Sydney and
 Ms Sue Talbot, Sydney University. 1 week's visit in their
 yacht 'Rainbird' on way to South Africa. Coral Reef fish
 ecology/lagoon planktonic Crustacea.
- Mr Galway Kinnel, Macquarie University, Sydney, visiting poet.
- Dr Jeff Leis, Queens Fellow at The Australian Museum, Sydney.

 4 trips totalling 12 weeks. Studies of Ichthyoplankton taxonomy and distribution patterns.
- Dr Pat Hutchings, Australian Museum, Sydney. 2 trips totalling 4 weeks. Long-term studies on bio-erosion of corals, especially polychaetes which live among dead coral rubble.
- Mr John Fields, Australian Museum, Sydney. 5 days. John is the Museum's still-photographer and visited Lizard for P.R. work.
- Professor Dilwyn Griffiths and
- Dr Jim Luong-Van, James Cook University, Townsville, Qld. 4 day visit. Extracting and studying cloroplasts from ascidians

- Professor Michel Pichon, James Cook University, Townsville, Qld.

 1 week. Worked mostly on outer barrier reefs studying coral
 zonation and reef geomorphology.
- Mr Ted Dewes, Comptroller of Buildings, James Cook University,
 Townsville, Qld. James Cook University are establishing a
 small field station on Orpheus Island, near Townsville.
 Ted visited Lizard Island to learn from us how we set up
 our aquarium systems, diving facilities, field laboratories,
 etc.
- Dr John Lucas, and
- Dr Dave Maguire and
- Mr Warwick Nash, James Cook University, Townsville, Qld. 2 weeks. Electrophoresis studies on population genetics of crown of thorns starfish.
- Dr Terry Done, James Cook University, Townsville, Qld., now of the Australian Institute of Marine Science, Townsville.

 3 days (preliminary survey). Coral community ecology using underwater 3-D photo transects.
- Mr Zolly Florian, James Cook University, Townsville, Qld. Zolly is the microscopist at James Cook University. He spent a week discussing photomicrographic techniques with Peter Parks and Jim Frazier, in addition to servicing the Station's microscopes.
- Mr Wally Wardrop, Wild-Leitz Australia. 3 days demonstrating photomicrographic equipment and advising on the Station's future microscope needs.
- Dr Ralf Buckley, Australian Institute of Marine Science, Townsville Qld. 4 trips totalling 10 weeks. Studying patterns of vegetation growth and recruitment on islands of the Great Barrier Reef.
- Dr Bob Edwards, CSIRO Division of Fisheries & Oceanography, Cronulla.

 3 days. Inspection of water sampling equipment and techniques
 used in our bi-monthly samples which are taken by the Station
 on behalf of the CSIRO.
- Mr Alistair Birtles, James Cook University, Townsville, Qld. 2 trips totalling 3 weeks. Some time was devoted to continuing project on crinoid ecology. Main purpose of visit was in conjunction with ABC Natural History Unit making films on the Station and the Barrier Reef (see 'Other Visitors' below).
- Mr Bill Rooney, Macquarie University, Sydney. 10 Days. General overview study of coral reef ecosystems in relation to environmental impact study on Lord Howe Island reef.

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- Mr Rudie Kuiter, Associate of Australian Museum, Sydney. 3 weeks. Collection and photography of labroid and gobiid fishes, and micro-molluscs and nudibranchs for the Australian Museum.
- Terry Frazer and
- John Cornelius, Queensland Fisheries Service, Northern Research Station, Cairns. 10 days tagging and releasing makerel for program on makerel biology led by Mr Geoff McPherson.
- Dr Bill Rudman and
- Mr Ian Loch, Australian Museum, Sydney. 2 weeks. Studies on ecology and taxonomy of nudibranch molluscs.
- Dr Adrian Gibbs, R.S.B.S., Australian National University, Canberra.
 10 days. Continuing studies on plant mosaic viruses.
- Dr Winston Ponder, Australian Museum, Sydney. 10 days. Ecology and taxonomy of tropical micro-molluscs.
- Mr Roger Steene, Associate of Australian Museum, Sydney. 1 week.

 Photography of coral reef fishes and biota for technical

 and popular articles on the Barrier Reef (see Publications).
- Mr Bob Pearson and
- Mr Bruce Blackford, Queensland Fisheries Service, Northern Research Station, Cairns. 1 week. Studies on ecology, growth and development of the giant clams, Tridacna spp.
- Mr Lyle Vail, University of Sydney (assisting Dr Robin Wass)

 10 days. Ecology and distribution of coral reef Bryozoa.
- Mr Ernie Grant, Special Advisor to the Queensland Government on Marine Biology. 3 weeks. Collecting and photographing tropical marine fishes for his book on <u>Fishes of the Great Barrier Reef</u> (over 10 species of fish were added to the Lizard Island check list now over 800 spp.).
- Professor Malcolm Chaikin, University of New South Wales, Sydney.

 4 days. Discussions with Director on developments in marine science in Australia; and possible collaboration between Israel and Australia in studies on coral reef biology.
- Dr David Bishop, CSIRO Division of Food Technology/Plant physiology unit, Macquarie University. 1 week. Photosynthetic capacity of symbiotic zooxanthellae.
- Dr Roger Summons, R.S.B.S., Australian National University,
 Canberra. 1 week. Nutrient exchange between symbiotic
 chloroplasts (zooxanthellae) and ascidian hosts.
- Ms Jane Fallows, Great Barrier Reef Marine Park Authority. 4

 days. Survey of fishermen for Great Barrier Reef Management
 Suidelines

- Ms Susan Fredrickson, N.S.W. State Fisheries, Sydney. 2 weeks.

 Collection of fishes for pesticide residue and PCB analysis.
- Mr Helmut Panhuber, Macquarie University, Sydney. 2 Weeks. Coral community studies using factor analysis.
- Mr Jack'Haley, with three assistants from the Commonwealth
 Department of National Mapping spent a week around Lizard
 Island mapping the area for the Great Barrier Reef Marine
 Park Authority. The Platform was used as a stable trig.
 station on the outer barrier reef and is now marked by a
 brass plaque in the reef.

OVERSEAS SCIENTISTS

- Dr Robert Robertson, Academy of Natural Sciences, Philadelphia. $2\frac{1}{2}$ weeks. Studies on the eggs and larvae of prosobranch molluscs.
- Dr Richard (Joe) Houbrick, Smithsonian Institute, Washington.

 1 week. Functional anatomy, autecology and systematics of molluscs of the genus <u>Cerithium</u>.
- Professor Talbot Waterman, Yale University, Connecticut. 1 week.

 Visual physiology of the compound eyes in Crustacea.
- Dr John Taylor, British Museum (Natural History), London. 4½ weeks. Ecology of predatory gastropods.
- Dr Barbara Brown, Dove Marine Laboratory, Newcastle-upon-Tyne.

 Investigation of environmental tolerances of coelenterates
 from selected reef habitats.
- Mr Peter Parks and
- Dr David Shale, Oxford Scientific Films, London. 3 months.

 Production of natural history films, specializing in

 micro-cinematography of zooplankton and coral reef invertebrates.
- Dr Bryce Kendrick, University of Waterloo, Ontario. 2 weeks. Bioerosion of corals by micro-fungi.
- Dr Bob Ginsburg, University of Miami, Florida. 2 days. Sedimentation and reef building in coral reef communities.
- Dr Carole Mickman, University of California, Berkely. 1 week. Functional morphology and evolution of archaeogastropod radulae.
- Dr Gerry Bakus, University of Southern California, Los Angeles. $2\frac{1}{2}$ weeks. Evolution of toxicity and cryptic behaviour of sponges in relation to fish feeding behaviour.

- Dr Dan Simberloff and
- Dr Ed Connor, Florida State University, Florida. 1 week. Island bio-geography using arthropod populations in small mangrove habitats.
- Professor Andy Benson, SCRIPPS Institute of Oceanography, La Jolla.

 1 week. Immunochemical assay of mucus consumption (from corals) of mucivores.
- Dr Cecil Allweis, Hebrew University, Jerusalem. 1 week. Studies on memory mechanisms and consolidation in marine animals.
- Dr Jurgen Tautz, c/- Australian National University, Canberra (visiting from Berlin, Germany). 1 week. Acoustical communication in crabs.
- Dr Siro Senoh and
- Dr Teruhisa Noguchi, Central Research Institute, Suntory Ltd.,
 Tokyo, Japan. 4 days. Preliminary visit to assess the use
 of the Lizard Island facilities for a concerted program on
 tropical marine pharmacology by Japanese scientists. This
 proved successful and the first 'contingent' is expected
 early in 1981.
- Dr Yehuda Cohen, Hebrew University, Jerusalem. 4 days. Visit for discussions with Director on possibility of developing joint Israel-Australia programs on the study of coral reefs. (cf. Professor Chaikin and Dr Loya discussions are ongoing and seem promising).
- Dr Skip Livingston, Florida State University, Florida. 4 days.

 Visit for discussions with Director on possibility of
 developing multidisciplinary projects on coral reef
 ecosystems, through the Australian Institute of Marine
 Science.
- Professor Joan Marsden, McGill University, Canada. 3 weeks.

 Settlement and metamorphosis of the larvae of the polychaete worm Spirobranchus giganteus.
- Dr John Ogden, West Indies Laboratory, St. Croix, Virgin Islands.

 1 week. Ecology of herbivorous reef fishes and the effects
 of their grazing on sea grasses.
- Dr Ross Robertson, Smithsonain Tropical Research Institute, Panama, 5 days. Community ecology and feeding strategies of Acanthurid (surgeon) fishes.
- Dr Anders Warren, University of Goteborg, Sweden. 2 weeks.
 Parasitology of echinoderms by gastropod molluscs.

- Dr Wendell Patton, Ohio Wesleyan University, Ohio, U.S.A.

 10 days. The biology and distribution of animals associated with living coral heads.
- Dr Yosi Loya, Tel Aviv University, Israel. 3 days. Population ecology and reproductive biology of corals. Studies on the effects of stress (e.g. Oil Pollution) on coral reproduction.
- Dr Niels Svennevig, c/- University of Queensland, Brisbane.

 (Visiting from West Berlin, Germany). 1 week. Taxonomy and biology of barnacles associated with coral reefs.
- Dr Phil Regal, University of Minnesota, U.S.A. 1 week. Foraging behaviour of lizards, especially varanids.
- Dr Brian Luckhurst, Bermuda Biological Station, Bermuda. 3 weeks.

 Coral reef fish community ecology.
- Dr Laurence Abele, Florida State University, U.S.A. 2 weeks. Ecology of coral associated Crustaceans.
- Dr Brian Kensley, Smithsonian Institution, Washington, U.S.A.

 1 week. Systematics of marine isopod Crustaceans.
- Mrs Anne Cohen, Smithsonian Institution, Washington, U.S.A. 1 week. Community studies on benthic, epibenthic and meroplanktonic Crustacea.
- Dr Jean Whatley, Oxford University, England. 1 week. Chloroplast studies on local mangroves; collection of <u>prochloron</u> from didemnid ascidians for electron microscopy.

OTHER VISITORS (including V.I.P's)

- Mr A.T. Reid and his wife visited the Station and most generously made their plane available for the taking of some excellent aerial photos of Lizard Island and the nearby outer barrier reefs. Sandy Reid is connected with the Madingley Victorian Charitable Trust, which has made some very generous donations recently to the Lizard Island Reef Research Foundation. Sir John Reid also visited in this connection.
- Mr Robin Williams of the ABC Science Unit spent 2 days at the Station and produced a half-hour radio documentary on the Station's activities and some of the visiting scientists.
- Ms D.Gilmour of the ABC Natural History Unit, with a team of 14 photographers, sound recorders and divers, spent three weeks on the Island in November/December making two half-hour documentary films. Mr Alistair Birtles (James Cook University) provided technical advice.

The first film was commissioned by the Great Barrier Reef

Marine Park Authority and was on the Barrier Reef as a marine

- park. The second film was on the Research Station the people who live and work here, and the types of research undertaken. These films should go to air in late 1980.
- Mr Neville Green and Mr Andrew Green (of the Lizard Island Reef Research Foundation) brought Prince Mashail of Saudia Arabia to Lizard Island to see the Station in November, 1979.
- Mr Andrew Green again visited the Station on March 26, 1980, together with members of the Quandt family from West Germany.
- A party of 12, including the Senate Select Committee on Science and the Environment, visited the Station (unannounced) on May 16, 1979.
- Professor H. Trollop, Deputy Vice Chancellor of James Cook University, paid a visit on July 13, 1979.
- A party of 10 scientists from the R.V. Alpha Helix (operated by SCRIPPS Institute of Oceanography, California) toured the Station on April 27, 1979, when the 'Alpha Helix' anchored for the day at Lizard Island.
- Mr Graeme Kelleher, Chairman of the Great Barrier Reef Marine
 Park Authority, visited the Station for several days over
 Christmas to discuss with the Director problems concerned
 with the Great Barrier Reef Marine Park, and possible
 research programs of relevance to the Authority.
- Mr Kelleher again visited on January 26, 1980, bringing Dr. Talbo (Director General of the United Nations Environment Program) to see the Station, and the northern part of the Great Barrier Reef.
- Robert Williams (son of Henry Loomis) spent 3 months on a work/
 assistance experience at the Station in 1979. He very ably
 assisted in all sorts of Station work and development programs
 the Station benefited considerably from his assistance and
 good humour.
- Dr Des Griffin & Dr Joe Baker stayed at the Station for a few days in late July, and Sir John Proud (of the Lizard Island Reef Research Foundation) visited on July 29 for an Executive of the Lizard Island Trust.
- Overall, 1979 proved an interesting and very satisfying year. The Station is obviously becoming better known internationally both from the scientific and fund-raising points of view. Refinements to the Station's faulties the progressing and 1980 promises to be an even better year.

I am grateful to all who have come to study at Lizard Island for their co-operation and general care of the Station's equipment and to all those behind-the-scenes, whose assistance keeps the Station running.

Barry Goldman Director. May, 1980

The following table may be instructive (especially to potential visitors) showing the average and range of accommodation at the Station over the last 3 plus years.

| | Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sept | Oct | Mov | Dec |
|-------------|------|-----|-----|-----|-----|-----|------|-----|------|-----|------|-----|
| Lower range | 4.0 | 4.3 | 0.9 | 1.8 | 2.8 | 2.9 | 5.0 | 2.4 | 2.2 | 4.2 | 5.0 | 9.1 |
| Mean " | 9.9 | 5.1 | 2.1 | 3.6 | 3.2 | 4.5 | 6.9 | 3.9 | 7.0 | 4.7 | 8.7 | 9.3 |
| Upper " | 14.5 | 5.6 | 3.6 | 6.2 | 4.1 | 6.9 | 8.0 | 4.8 | 13.1 | 5.4 | 12.9 | 9.4 |