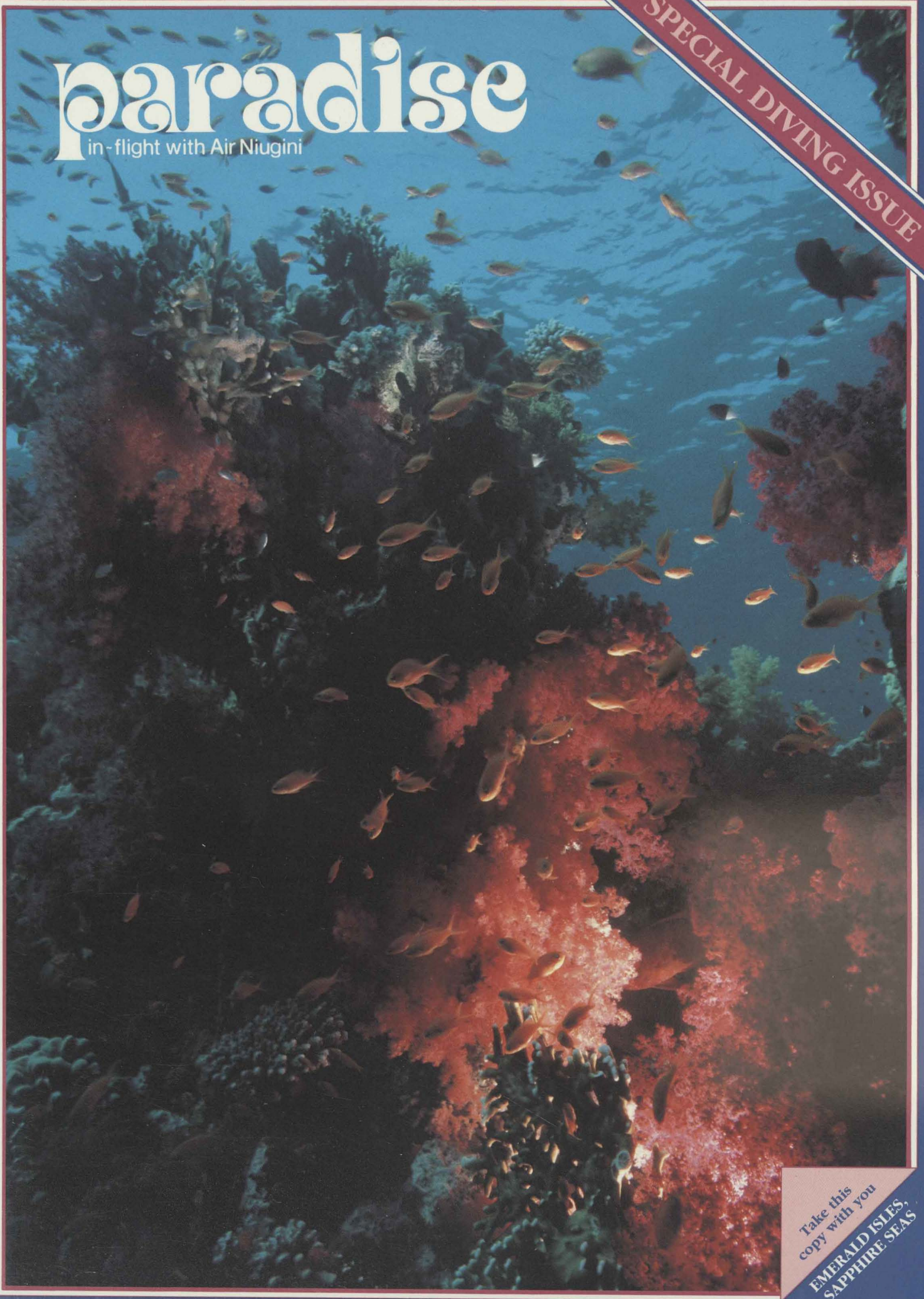


paradise

in-flight with Air Niugini

SPECIAL DIVING ISSUE

Take this
copy with you
EMERALD ISLES,
SAPPHIRE SEAS



HINO

KING OF THE ROAD



Hino offers 10 specific model variations covering 4x2, 6x4 and 8x4, with a choice of flat-deck, dump, or to your specifications, backed by the largest and most comprehensive Hino Genuine Parts supply and Quality Service network in Papua New Guinea through Ela Motors Nationwide

Hino



Ela Motors

YES...ANOTHER
HINO

ENQUIRIES PLEASE CONTACT
STAN FREEMAN MANAGER TRUCKS & EQUIPMENT DIVISION
PH 229446 FAX (675) 217268 TELEX NE22125 PO BOX 74 PORT MORESBY
FIELD SALES SUPPORT
COLIN OZANNE PH 433660 FAX 422463 PO BOX 3182 LAE
PETER HEYSTRATEN PH 521888 FAX 521937 PO BOX 93 MT HAGEN



paradise

No 99 Jul-Aug 1993

Paradise is published bi-monthly by Air Niugini, PO Box 7186, Boroko, Papua New Guinea (telephone 273415; fax 273416).

Welcome aboard!

The most interesting and romantic coral reefs are atolls which abound in several areas of PNG, and are great places for diving and photography.

Photographing live shellfish as they hunt and feed has become a passion for leading dive specialists Bob and Dinah Halstead, Producing some amazing results.

One of the world's most travelled scuba adventurers recently dived Papua New Guinea waters and found some of the most spectacular under sea scenes he had ever witnessed.

I hope you enjoy our articles on these and other activities in our special diving issue.

Have a pleasant flight.

Dieter Seefeld
Chief Executive & General Manager
Air Niugini



Dieter Seefeld
Chief Executive & General Manager
Air Niugini

IN THIS ISSUE:

- 5 AN OCTOPUS'S GARDEN**
Coral reefs are the richest and least known of natural environments.
- 13 WRECKS IN MILNE BAY**
Sailing ships and war planes share the sea bottom.
- 19 A WHALE OF A TIME**
False killer whales feed on sailfish and frolic with divers.
- 29 SHELL SECRETS**
Collecting live molluscs on film captures the real beauty
- 35 PIER IN PARADISE**
Jetty piles are fascinating marine habitats.
- 41 EMERALD ISLES, SAPPHIRE SEAS**
Sampling the world's best scuba sites in PNG.
- 48 TREASURES OF THE DEEP**
Deep diving has risks and rewards for marine enthusiasts.

Editor — Geoff McLaughlin MBE
Consultant — Bob Talbot
Editorial — Ross Waby
Art Director — Robin Goodall
Subscriptions — Maggie Worri

Advertising

Papua New Guinea —
c/- The Editor,
Paradise Magazine,
PO. Box 7186, Boroko.
Australia —
Samuelson Talbot & Partners Pty Ltd.
4/312 St. Kilda Road,
Melbourne, Vic. 3004
Telephone Melbourne (03) 693 1400

Subscriptions

Annual subscription rates for six issues are: PGK30, US\$30, A\$40
Papua New Guinea subscription K15.
(Payment by international bankdraft).

Printed in Hong Kong by
Progressive Printing Agency.
Block C, 2/F, Kam Ming Yuen
No. 11, Kam Ping Street
North Point
Hong Kong

Tel: 563 0145
Fax: 811 1344

While every care will be taken, no responsibility will be accepted by Air Niugini for the return of manuscripts, photographs or artwork.

No responsibility is accepted by Air Niugini for the accuracy of information contained in the text, illustrations or advertisements.

Cover: Papua New Guinea's coral reefs are living tapestries (see page 41). Photograph by Rick Tegeler.

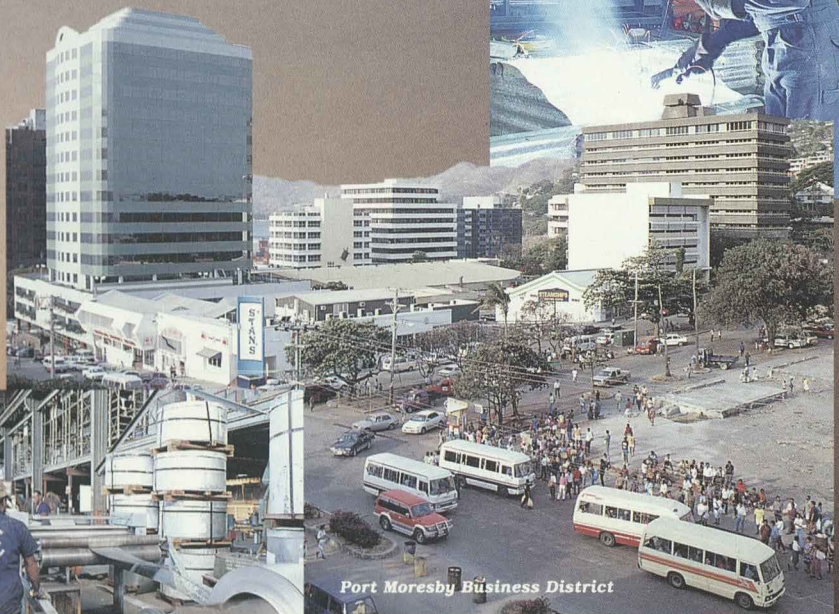


Investment Corporation of Papua New Guinea

The Investment Corporation was established in 1971 by an Act of Parliament by the National Government.

Papua New Guinea is known worldwide for its mineral wealth, but there is also enormous potential for agricultural/agro based industries, particularly for value added products. In keeping with the Government's policy of encouraging investment in Papua New Guinea, the Corporation is keener than ever to identify and implement viable new projects in conjunction with overseas partners.

Given our unique position and experience, the Investment Corporation of Papua New Guinea is well qualified to provide a wide range of services for discerning investors.



Port Moresby Business District

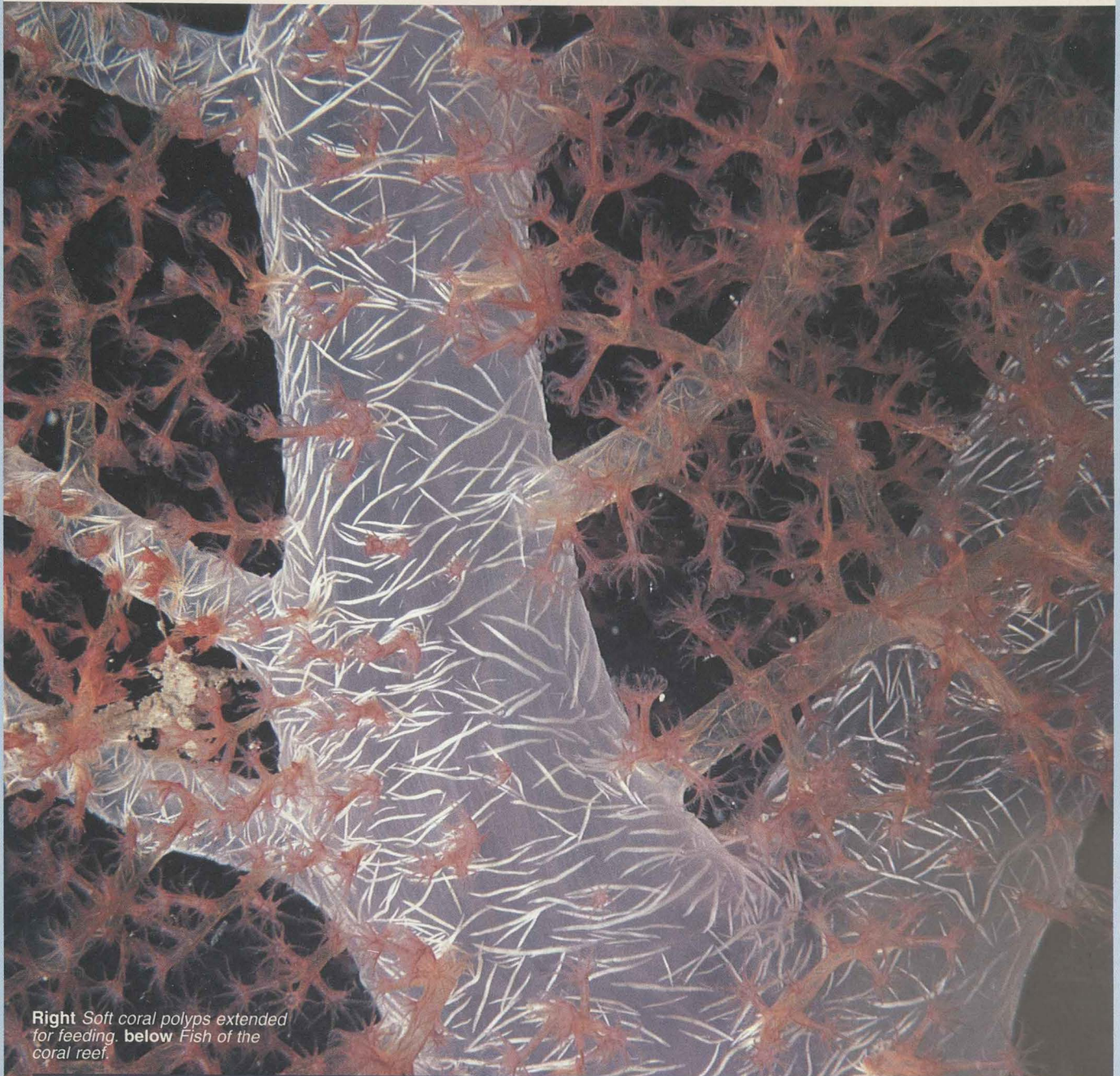


Wish to take advantage of the excellent business opportunities offering in Papua New Guinea! Please contact:-

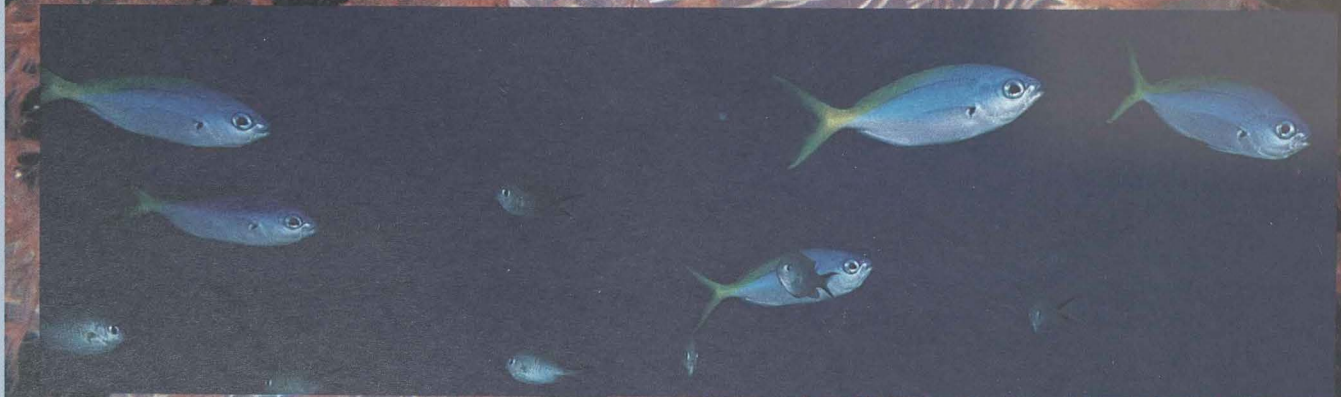
The Managing Director
Investment Corporation
of Papua New Guinea
PO Box 155 Port Moresby
PAPUA NEW GUINEA
Telephone: 0011-675-212855
Facsimile: 0011-675-211240

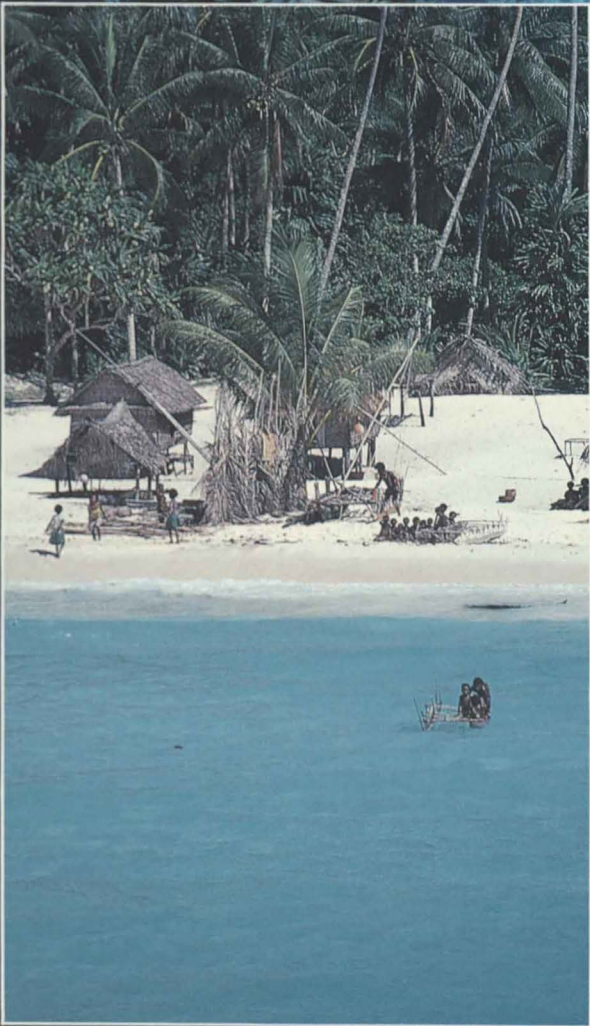
AN OCTOPUS'S GARDEN

Story and photographs by Kevin Glennon



Right Soft coral polyps extended for feeding. **below** Fish of the coral reef.







Inset, top left Hawksbill turtle prowls the reef. **inset, bottom left** Village on a coral cay, Egum Atoll, Milne Bay. **near insets, clockwise from left** Black-saddled toby puffer fish; nudibranch, a shell-less mollusc; lionfish.

Madang, and in Manus, New Ireland, New Britain and Morobe province and also in Kimbe Bay on the north coast of New Britain.

The most interesting and romantic of reefs, though, are atolls. The first stage of an atoll is a fringing reef surrounding a volcanic, oceanic island. When volcanic activity ceases the island commences a long, slow process of compacting, eroding, and sinking back into the earth, imperceptibly over many millions of years. The fringing reef, however, is alive and grows upwards as fast as the island subsides. When the island finally disappears, a circular coral reef surrounding a lagoon the size of the original volcanic island remains - an atoll.

In PNG, atolls exist in Milne Bay Province, off Bougainville Island, and throughout the Ninigo Group in Manus Province. In practice the surrounding reef may be oval or irregular, and there are often passages through the reef.

Atolls provide the conditions for the formation of coral cays. These are the picture postcard settings; the turquoise waters, and long sandy beaches with palms behind; the tropical idyll. Coral cays are formed when wind, waves and tide move broken coral, sand and other rubble onto the reef top. Vegetation, the seeds of which are carried by birds or the wind, gains an initial hold and an island or coral cay develops.

The building blocks of the reef are the hard corals. Small animals, coral polyps, secrete around themselves a skeleton of calcium carbonate (limestone). Tiny algae living within the coral tissues also aid this process. It is the accumulation of limestone that gives the reefs a solid structure and the ability to survive through rises in sea level or the subsidence of islands and continental land masses. If,

The undersea gardens that people call coral reefs are the richest yet most unknown environment. This magical world is one of nature's greatest wonders. Nowhere else is it easier to witness nature being itself, to witness ribbon eels, nostrils flared and mouth agape, poking out of holes in the rubble, or schools of tiny cardinalfish, translucent to the filtered sunlight, hovering in swarms above the reef, or solitary hawksbill turtles, out from the reef wall, swimming rapidly to the surface for another lungful of air.

Papua New Guinea is blessed with hundreds of kilometres of these natural wonders. Fringing reefs cling to headlands around the mainland coast and often completely encircle the numerous offshore islands. Barrier reefs run along the south eastern coast of PNG and into the Louisiade Archipelago at the extreme southern tip of the country. Short sections of barrier reefs also occur in the north around



Aviation
Papua New Guinea.



Shell Papua New Guinea Pty. Ltd.

however, geological forces cause uplift of land masses and attached fringing reefs, extinction of the reef results. Many inland limestone areas of PNG were created by the uplift of coral reef formations.

The gaps in, around, and over these building blocks are filled with exotic life-forms

Inset, left Coral reef surrounds Malendok Island, New Ireland.
inset, right Seasquirts.

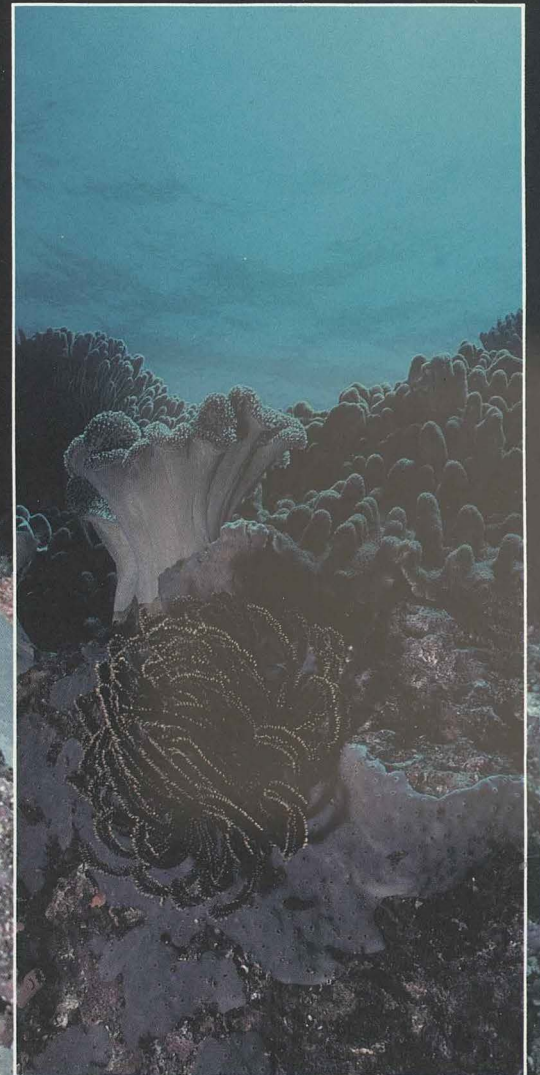
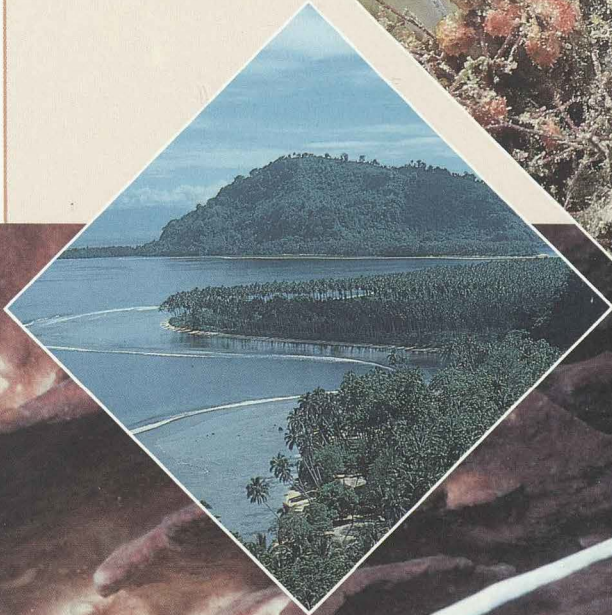
which add little to the reef's substance but a lot in terms of color, form, and movement. Anemones, soft corals, algae, sponges, ascidians, marine

worms, molluscs, fish, reptiles, and mammals each fight for a space on the reef, a place to call home.

I rarely snorkel these days. Although snorkelling is exhilarating, the total immersion and focused outlook during scuba diving provides a more intense communion with the ocean and the reef. And PNG provides numerous chances for this communion. From Kavieng in the north to Milne Bay in the south the areas where first class land based diving facilities are available are many and varied. Walindi in Kimbe Bay, Madang on the north coast, Port Moresby,



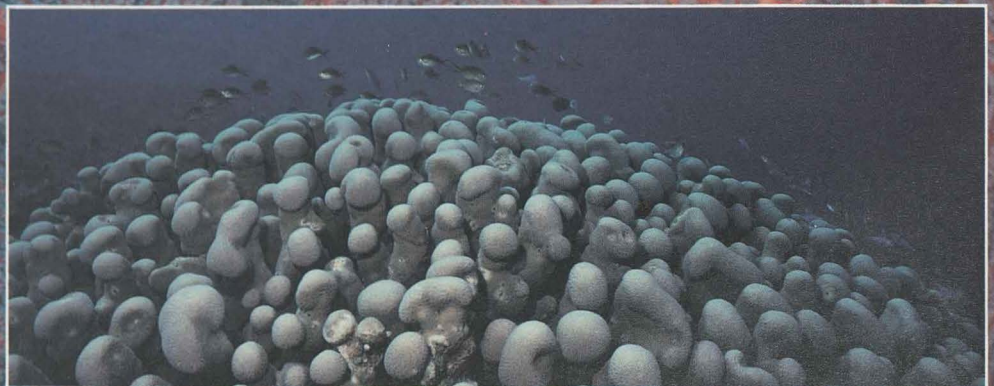
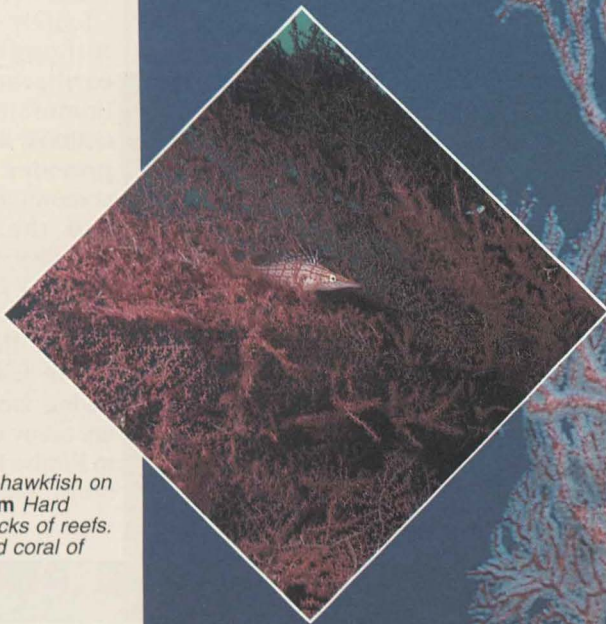
Below, left Longfin bannerfish. **below,**
right Coral varieties.



Inset, right Longnose hawkfish on gorgonian coral. **bottom** Hard corals, the building blocks of reefs. **right** Colorful branched coral of the octopus's garden.

Rabaul, and Salamaua along the coast from Lae. Live-aboard boats also operate out of many main centres enabling access to remote reefs.

Even at the same dive resort, even on the same reef, no two dives are ever the same; the blend of life always varies. A curious procession of sharks may glide past below, first a fat silvertip, then a grey reef and then a black tipped reef shark. During later dives on the same reef no sharks will be sighted, but an eagle ray may glide in from up-current and then circle down and around before fleeing, and a pair of longfin bannerfish may dance and frolic in front of your mask, or a school of barracuda may circle tightly, too tightly, around you. Or, an octopus may scamper across the sandy sea bed, and change shape as it bends into a coral crevice, secure in its garden.





MOTOROLA



P110 PORTABLE TWO-WAY



M170 MOBILE TWO-WAY

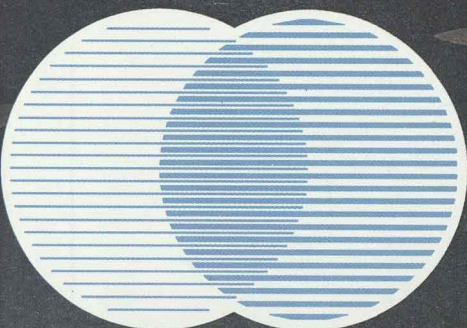


GM300 MOBILE TWO-WAY

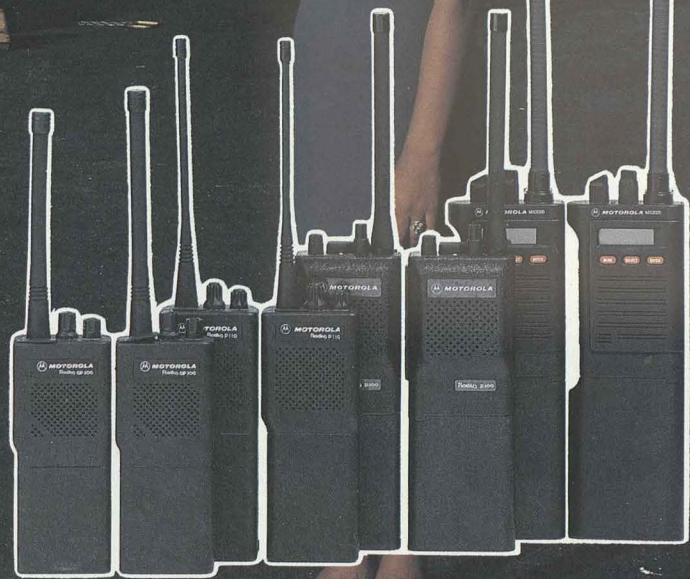


GP300 PORTABLE TWO-WAY

PACOM COMMUNICATIONS PNG
ARE THE LEADING MOTOROLA DEALER
FOR THE AUSTRALASIAN REGION
AND PLAN TO MAINTAIN THIS STRONG POSITION
IN THE FUTURE.



PACOM
COMMUNICATIONS



the sole Distributor of **MOTOROLA** Radios in PNG

Lae: Ph: 42 3999 Fax: 42 3137 Port Moresby Ph: 25 7111 Fax: 25 8204

Great Cars. Great Rates. Great Service.



Hertz offers...

- Low daily and weekly rates
- First class service
- Major credit cards accepted
- Country wide locations
- Chauffeur drive
- Good clean cars
- Friendly staff
- Fast computerised reservations

FOR RESERVATIONS CALL HERTZ ON:

25 4999

Fax: 25 6985

BRANCHES THROUGHOUT PNG

KIMBE 93 5548	MT HAGEN 55 1522	RABAUL 92 1986
LAE 42 5982	NAMATANAI 94 3033	WEWAK 86 2023
GOROKA 72 1710	KAVIENG 94 2374	MADANG 82 3103



Papua New Guinea's first choice in car rental.

Wrecks

IN MILNE BAY

In 1873 Captain John Moresby was the first European to sail through China Strait. In 1973, just 100 years later, I found myself stepping off a small aircraft to start my new job teaching at Cameron High School near Alotau. I was soon captivated by the charm of Milne Bay and its friendly inhabitants in the same way that Captain John Moresby obviously had been, and being a keen amateur scuba diver, I determined to use my spare time to explore as much of the world underwater as he had above water.

One of the first places I dived was Discovery Bay, named by Moresby. The blue water still rippled up to the coconut palms, and canoes glided about as village men fished, but the most obvious feature of the bay now was a large shipwreck.

The wreck, about 60 metres long, was built of steel and had a beautiful round counter stern and straight stem that suggested a glamorous past. However, the superstructure was pure utility. A dig in the hold soon revealed what the ship had been used for. The ship had been carrying coal (there are still a few tons on board) and had been used to refuel steamships in World War II.

She was built as a four-masted royal barque and named Buckingham by Queen Victoria herself in England in



Left Remains of the *Muscoota's* gantry. **Inset** *Muscoota* in her glory days, painted by A.V. Gregory.

**Story and photographs
by Bob Halstead**

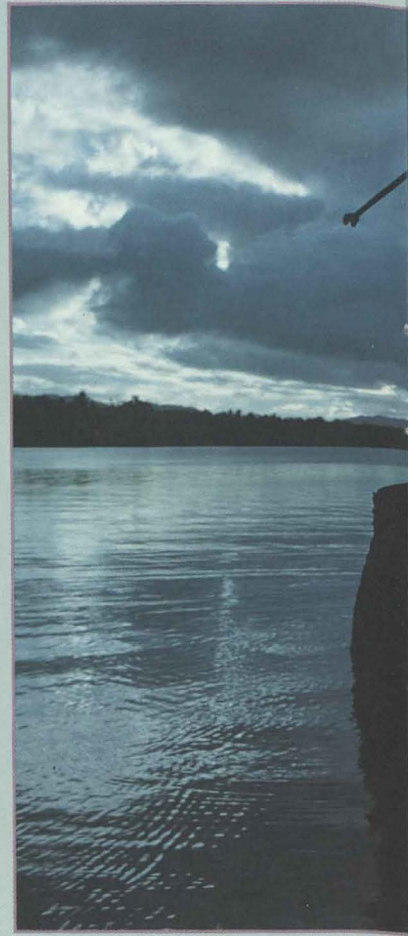
1888. She sailed out of Liverpool but eventually went to Germany where she was renamed Ottawa and then Bertha. She was seized in San Francisco when the First World War with Germany was declared and was renamed again Flying Cloud in recognition of her great sailing speed after a famous record breaking clipper ship of that name.

Her name was changed again to the Muscoota to conform with the policy of naming American Shipping Board vessels after American Indian tribes. Bearing this name she was purchased by Captain J.C. Wilvers. Under his brilliant captaincy the Muscoota was recognised as the finest sailing ship afloat and continued to break records, once sailing from Melbourne to Newcastle in 52 hours. She was under charter to carry timber from San Francisco to Australia and sailed in the path of the great clippers rounding Cape Horn and surfing through the roaring forties.

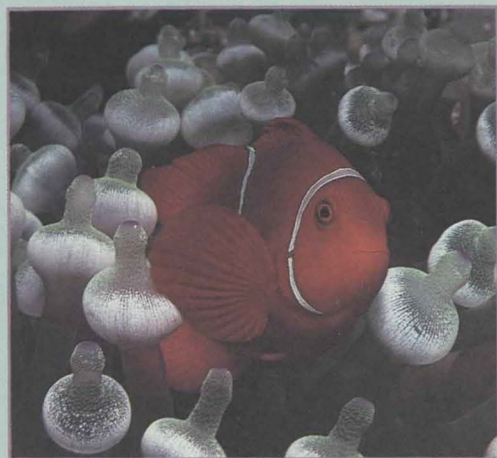
Unfortunately on Christmas Day 1922, leaving Melbourne for Sydney, she collided with the Norwegian Steamer Yarra. The bows of Muscoota cut through the Yarra's steel plates and the cook in the galley found himself staring at the figurehead, a likeness of Queen Victoria, which was torn from Muscoota's bow and landed at his feet. The Muscoota was awarded damages against the Yarra but she had sailed her last voyage under her own power.

Later she was stripped to a hulk in Sydney and converted to a refuelling barge with the addition of a giant travelling gantry. In 1943 she was towed to Milne Bay to be used to fuel the warships driving the Japanese out of the Pacific Islands.

The end for Muscoota came when she was alongside a ship for refuelling in an unsheltered part of the bay and a strong wind came up. The vessels surged together and Muscoota began to take



Above Victim of war, the Hudson bomber. **above right** Remains of the former sailing ship Muscoota. **right** Tomato clownfish. **facing page, near right** Plate indicating 100-pound bomb fastener. **facing page, far right** Nose of the Hudson bomber. **below left** Tiny file fish. **below right** Yellow angler fish.





on water. She was quickly towed into the shelter of Discovery Bay, the bow ran up to the beach and lines taken ashore to hold her there. Unfortunately whoever did the job neglected to secure the gantry and as the stern went down, the gantry slid back. The additional weight aft made it impossible to stop the water coming in and eventually she settled her stern on the bottom 25 metres down. And that is how I found her.

After the Battle of the Coral Sea, the Japanese forces invaded Milne Bay hoping to establish a base from which to attack Port Moresby and Australia. A vicious battle was fought in August 1942 which resulted in the first land defeat of the Japanese. I often stumble into evidence of the large Allied base at Milne Bay when I dive around the shores of the bay. A sunken jeep, a tractor, boxes of ammunition, wire rope and debris from the war pushed into the ocean by the departing forces.

Recently some divers found a beautiful intact Lockheed A28 Hudson armed reconnaissance aircraft. Apparently the five crew aboard survived the ditching of the aircraft but there was some confusion since the villagers claim the plane carried Japanese. The Hudson was developed from the Lockheed 14 Electra airliner. The Japanese also developed an almost identical military transport plane, Tachikawa Ki-54c known in Allied code as 'Thalia'.



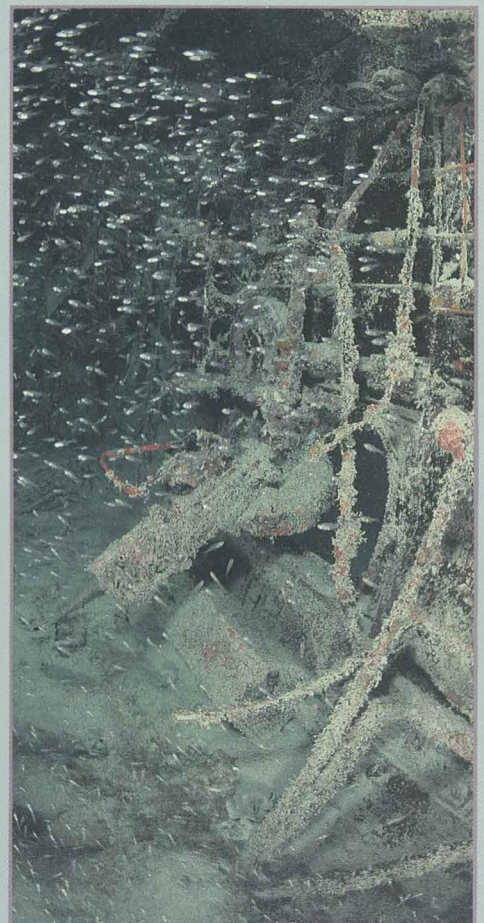
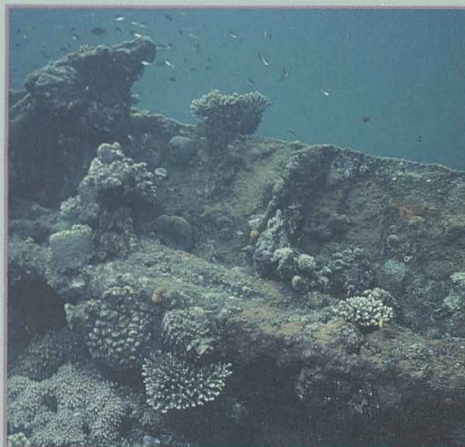
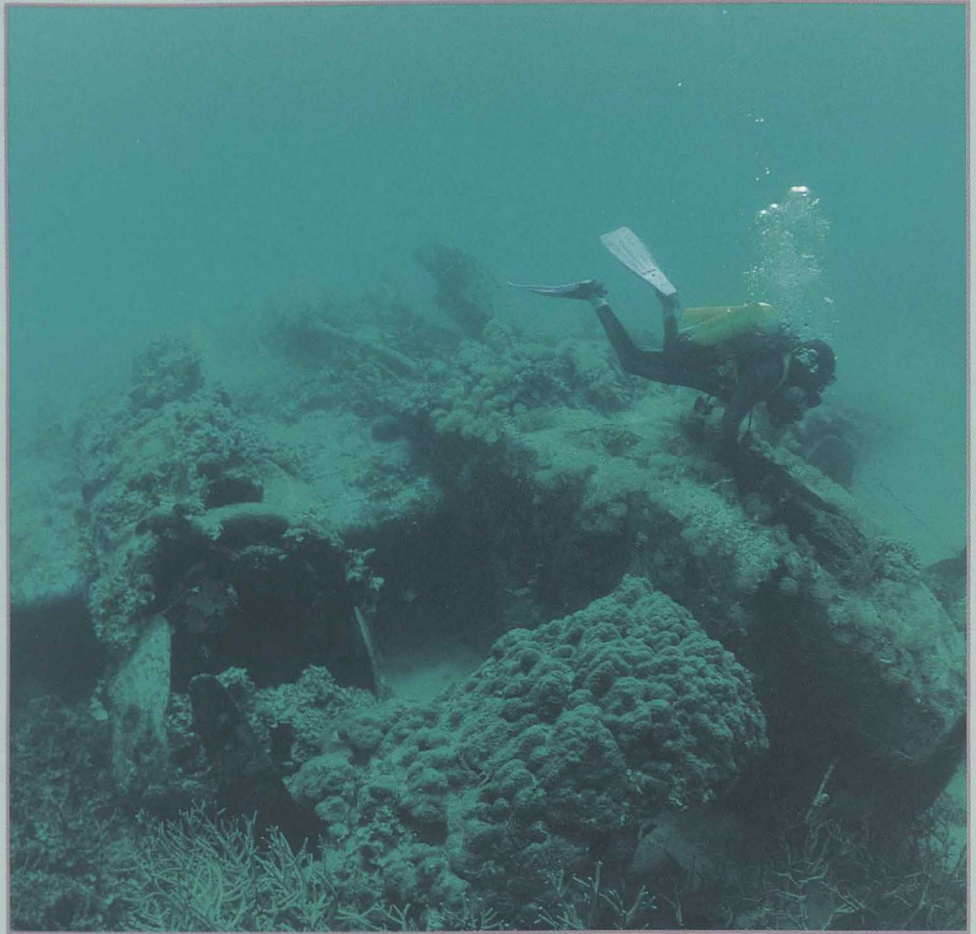
When we first dived the wreck in December 1992 we could see that there was an observer's seat in the nose, and that the aircraft was heavily armed with no passenger seating, so the evidence pointed to the American built reconnaissance aircraft.

On the next dive however I saw the marks in English for positioning the 100-pound bombs that were sometimes carried and so was able to confirm that the aircraft was American.

Originally the Hudson had ditched in fairly shallow water on top of a reef but its exposed position caused it to be moved by the waves down the reef and it flipped upside down so that it now rests between 12 and 15 metres.

At first I was disappointed that the Hudson was upside down but now I think it rather adds to the drama of the aircraft wreck. It will make the exact identification of the wreck and the tracing of its history a little more difficult, but now the mystery of the Muscoota has been solved it will give me something to do. I just hope it does not take me another 20 years.

Bob and Dinah Halstead own and operate the live-aboard dive boat Telita in Papua New Guinea.



Top The Hudson bomber lies upside down on the sea bottom.
bottom left Spare anchor remains lashed to Muscoota's bow.
bottom right Inside the Hudson bomber.

WHY RUN WITH THE CROWD?



Introducing the All New Mitsubishi Galant - Beautifully Engineered for the Way You Drive

Although the new Galant is probably the most handsome new car on the road, its true beauty lies in its sheer driveability. It gives you the freedom to drive exactly how you choose. With a sporty, dynamic personality, it has the energy to set your adrenaline flowing when you want to drive for fun. Yet for an effortless drive home after a long day, it has the smoothness and the comfort you'd expect in a quality saloon. Quite how you drive the new Galant is entirely up to you.

The key to the new Galant's versatile performance is All Wheel Control, a unique approach to car design that puts your needs first. It works on principle that every move a car makes, from accelerating to cornering, depends on how well your aims get passed to the road - and that hinges on all four wheels working as effectively as they can to direct, manipulate and control. With true communication between you and the road,

the new Galant guarantees total control with quicker, safer and more responsive performance than ever before imaginable.

The All Wheel Control vision is brought to reality in the new Galant by some of the most advanced automotive technology ever developed. From the first ever four wheel multi-link suspension system on a front engine, front wheel drive car, to some of the world's most intelligent computer control systems, the new Galant boasts breakthroughs that ensure a smooth responsive drive in all conditions. And with newly developed multi-valve engines, ranging from a 1.8-litre SOHC to a 2.0litre V6 DOHC, you can count on the power for the freedom to drive as you choose.

Discover the meaning of driving freedom with the new Mitsubishi Galant - and feel how All Wheel Control sets it apart from the crowd.



The All New
MITSUBISHI GALANT



PORT MORESBY 21 7874 LAE 42 2611 RABAU 92 1866

Agents: KIMBE 93 5035 Mt HAGEN 52 1855 WEWAK 86 2784

Coral Sea Hotels

Papua New Guinea's Largest Hotel Chain

together with the
Premier Car Rental Company

Check into one of our superb Hotels
in any of 7 unique locations throughout
Papua New Guinea and enjoy friendly
Melanesian Hospitality as well
as access to top quality Hire Cars.



Port Moresby



Mount Hagen



Port Moresby



Madang



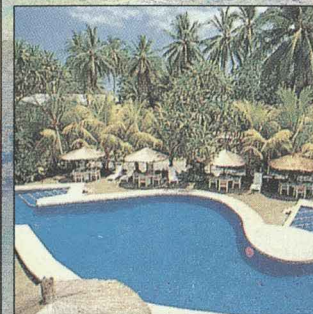
Lae



Popondetta



Lae



Coral Sea Hotels

P.O. BOX 1215 BOROKO, PAPUA NEW GUINEA
CENTRAL RESERVATIONS
PHONE: (675) 25 2612, FAX: (675) 257853

Budget
rent-a-car

A WHALE

of a Time

Story and photographs by Pat Manly



Left False killer whales frolic in St George's Channel between New Britain and New Ireland.

Shaking with excitement I prepared my underwater camera as I listened to my wife Lyn relate her experience. She said: "Pat, as the runabout approached the commotion in the water I sighted a long line of about 100 false killer whales strung out over a distance of nearly a kilometre. The whales were throwing themselves out of the water, splashing it into a cauldron.

"As we looked on in amazement, sailfish came swimming past, their dorsal fins standing erect, right out of the water. They were behaving erratically by swimming to and fro, seemingly not knowing where to go next. We could only guess at what was going on beneath us.

"Almost immediately a group of a dozen whales broke away from the main pod and

homed in on our small runabout. Can you imagine how we felt when the creatures as big as the boat crowded in to ride the bow waves? The whales were so close we could reach over and touch them." Lyn described how the whales turned on their sides and man and beast made contact with each other.

Lyn's words were still reverberating in my ears when our dive boat skipper yelled:

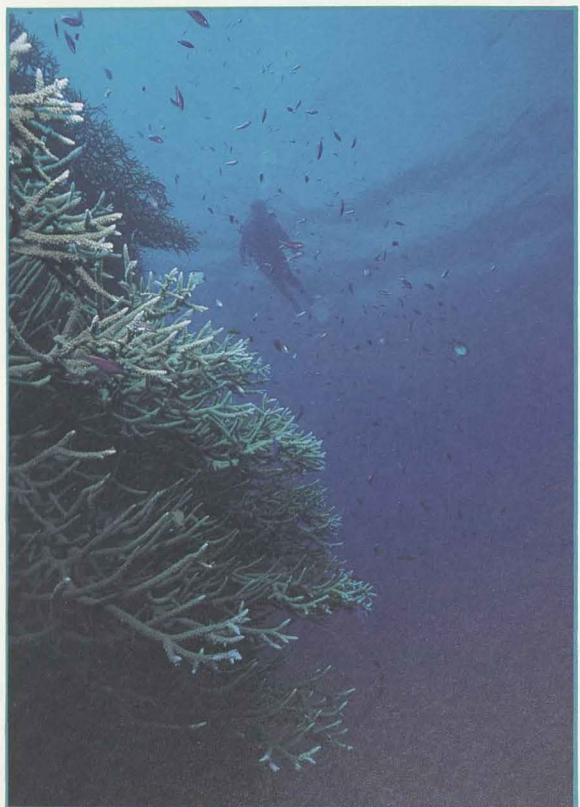


"They're here! Everyone quickly get into the water and hang onto the ropes and I'll tow you through the water."

Quietly we slid into the water. The pod slowly started to turn. I could feel the strain on the rope as we were pulled along. As I had guessed, the pressure was tugging at the lens on my camera. Reluctantly I let go of the rope. The next instant I heard clicks coming at me from every direction as several whales circled me.

Some of the whales circled slowly on the surface while others dived under, turning upside down to look at me from below. My mind was racing, taking in the beauty of what was happening. I was also trying to concentrate on taking pictures.

After a while the whales started losing interest and I motioned to the skipper, who was now waiting 100 metres from me in the small dinghy, to circle me with the boat. The



Top A solitary false killer whale surfaces for breath. **centre** Frank Butler tries to attract whale's attention. **right** Antler coral and fish in profusion on a reef.



WE KNOW PNG...
BECAUSE WE ARE PNG.

We know...
Our People...
Our Resources...
Our Businesses....

We are...
KILA BOWRING
Being expert in our
field is your bonus.

**MOST PEOPLE
CALL IT PARADISE...
WE CALL IT OUR
COUNTRY.**



Kila Bowring Insurances Pty Ltd

A MEMBER OF THE MARSH & McLENNAN GROUP
INTERNATIONAL INSURANCE & RISK MANAGEMENT CONSULTANTS
Ph: 21 1811 Fax: 21 1324

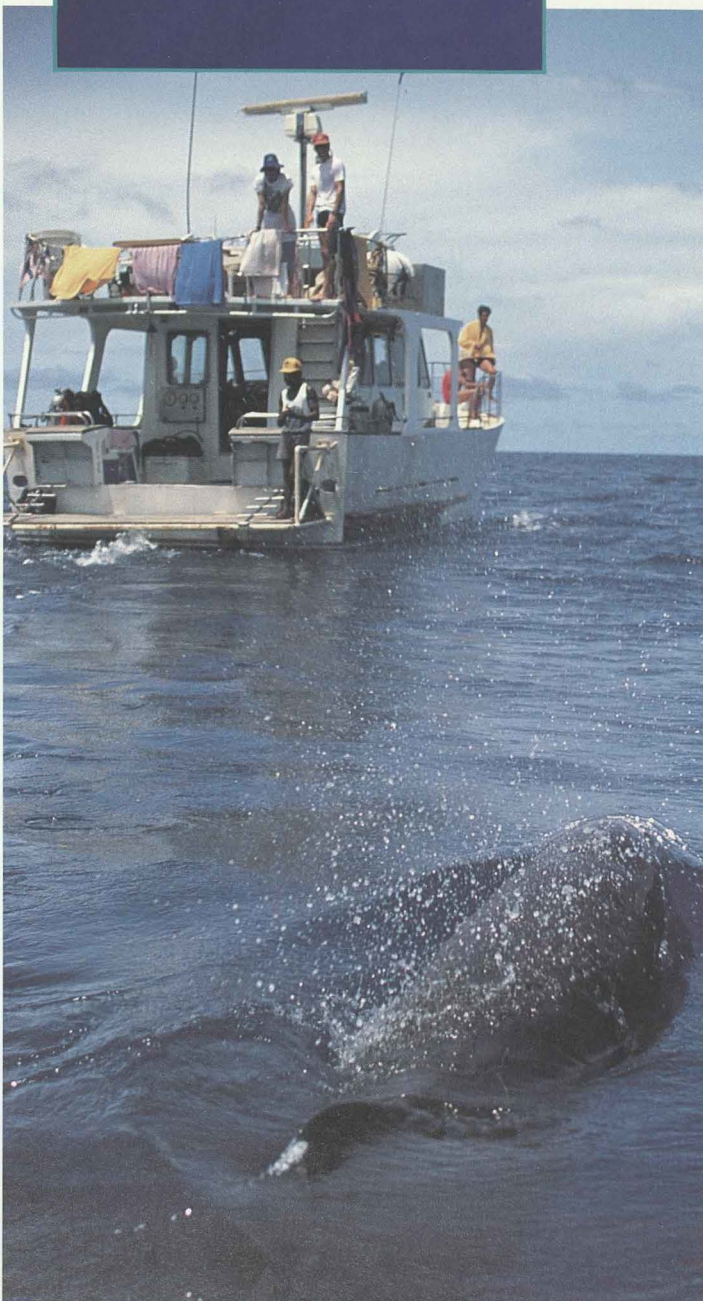


whales were about 16 metres below the surface making slow clicking noises as the boat passed over them. The intensity and pitch of their clicks increased. Off they shot. In an instant they were at the front of the boat riding, weaving and rolling, twisting and leaping out of the water. All the while the clicking went on.

The whales tired with this game, departed, leaving me alone, floating about in 300 metres of water. Out of the corner of my eye I noticed a movement. I turned and looked below me. An oceanic white tip shark was swimming slowly straight at me.

All I had on were a mask, snorkle and fins. I felt very alone out there. The shark kept coming directly at me. I thought: "This fellow isn't going to stop".





At the last moment, within one metre of me, it turned. "Thank God for that," I thought. It was then, realising I had not taken a photo, I managed to snap off two frames. The shark went on a few metres and turned sharply. I was over the side of the runabout in one quick movement. My heart was racing as I related my story.

Later, I was reading a book which stated that false killer whales, *Pseudorca crassidens*, grow to 5.5 metres long with females being smaller. They have 8 to 10 teeth in each row of both upper and lower jaws. Most of the mammals are entirely black.

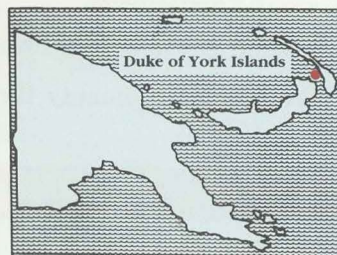
They are found in all temperate and tropical seas and often travel in schools of several hundred. They also herd up sailfish, thrash the water to stun them, then go in for the kill. This is what we had the fortune to witness out in the Duke of York Islands between New Britain and New Ireland.

The book stated schools of oceanic white tip sharks patrol under the whales while they are feeding, waiting for tidbits to float down to feast on. Also the oceanic white tip is one of the most dangerous sharks in the world.

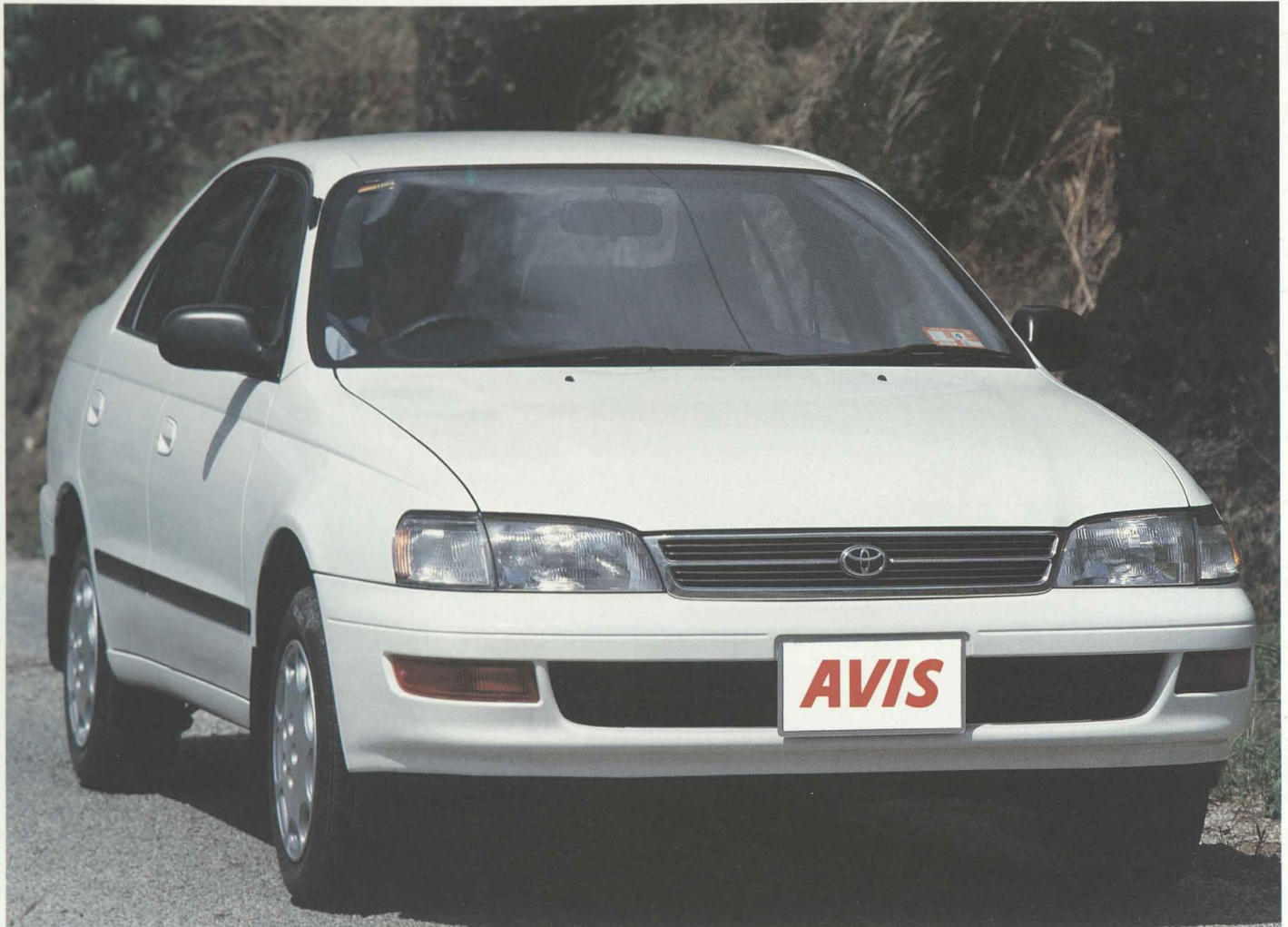
That put a shudder up my spine.

Facing page, top Typical PNG coral garden. **centre** False killer whales race in to ride the boat's bow wave. **bottom** Whale shadowed by its mate just below the surface.

This page, top Pod of false killer whales swims upside down to view the author from below. **centre** A shark looks for morsels from the whales feeding. **bottom** A whale follows in a boat's wake.



Nationwide Car Rental in Papua New Guinea.



Australian
Quality
Awards
1992
Winner



With nearly twenty years in the Car Rental business in Papua New Guinea, Avis continues to provide a friendly, superior service in eight locations.

You'll find us in Port Moresby, Lae, Mt. Hagen, Madang, Rabaul, Wewak, Goroka and Manus.

And with experienced and efficient staff at all of our branches in Papua New Guinea, a quality fleet of

sedans, wagons, 4WD's and buses, why would you want to use anyone but Avis?

Now that Avis Australia is the 1992 Australian Quality Awards Winner for Service, you can be assured that here in Papua New Guinea, we will be trying even harder in 1993.

Avis. Still number one in Papua New Guinea.

AVIS
We try harder.

For reservations call 258258 or 258429



Air Niugini

International routes



MONGOLIA

GOBI DESERT

Beijing • Xi'an • Shanghai • Taipei

CHINA

LAOS

THAILAND

CAMBODIA

MALAYSIA

SINGAPORE

INDONESIA

INDIAN OCEAN

OCEAN

SOUTHERN OCEAN

Vladivostok

SEA OF JAPAN

NORTH KOREA

Seoul

SOUTH KOREA

Osaka

Shikoku

Kyushu

TAIWAN

PHILIPPINE SEA

Manila

PHILIPPINES

Mindanao

Koror

BRUNEI

Borneo

KALIMANTAN

Celebes

Java

INDONESIA

Sumatra

Timor

Darwin

Broome

Western AUSTRALIA

Geraldton

Perth

Kalgoorlie

South AUSTRALIA

Adelaide

QUEENSLAND

Alice Springs

NORTHERN TERRITORY

Jayapura

Vanimo

Mount Hagen

Port Moresby

Cairns

Townsville

Rockhampton

Brisbane

Sydney

Canberra

Melbourne

VICTORIA

Wales

Wales

TASMANIA

Hobart

TASMANIA

Hokkaido

Honshu

JAPAN

Tokyo

SEA OF JAPAN

YELLLOW SEA

EAST CHINA SEA

NORTH PACIFIC OCEAN

PHILIPPINE SEA

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

Saipan

Guam

FEDERATED STATES OF MICRONESIA

Caroline Islands

REPUBLIC OF THE MARSHALL ISLANDS

Majuro

NAURU

Yaren

SOLOMON ISLANDS

Honiara

SOLOMON SEA

Vanuatu

Port Vila

NOUVEAUELLE CALÉDONIE

Noumea

FIJI

Suva

NEW ZEALAND

Auckland

North Island

Wellington

South Island

Stewart Island



Manila
Hong Kong

Jayapura
Vanimo

Bewani
Sissano
Aitape
Imonda
Amanab
Green River
May River
Sepik
Ambunti

HINDENBURG RANGE
IRIAN JAYA
Telefomin
Oksapmin
Tabubil
Ningrumi
Rumginae
Kiunga
Nomad
Lake Murray

Mount Hagen
Tari
Mendi
Moro
Kagua
Erave
Lake Kutubu

Wabag
Baiver River
Wapenamanda
Mt Wilhelm
Kundiawa
Goroka
Kainantu
Okapa
Wabo
Mumeng
Bulolo
Wau
Kikori
Baimuru
Ihu
Kerema
Kukipi

Balimo
Kiwai Island
Morehead
Bensbach
Daru
Daru Island

Singapore

Mulgrave Island
Moa Island
TORRES STRAIT
Horn Island
Prince of Wales Island
CAPE YORK

CAPE YORK PENINSULA
AUSTRALIA

Kairuru Island
Wewak

Angorum
Manam Island
Hansa Bay
Bogia
Karawari
Amboin

Madang
Madang
Kaiapii
Nadzab
Lae

Manus Island
Lorengau
Momote

Long Island
Umboi Island
Sialum
Huon Peninsula
Finschafen
Tami Island

Gloucester
Siassi
Kandrian

Popondetta
Kokoda
Mt Victoria
Tufi
Wanigela

OWEN STANLEY RANGE
Kwikila
Kupiano

Cairns
Brisbane
Sydney

CORAL SEA

BISMARCK SEA

Karkar Island
Bagabag Island

Long Island
Umboi Island

Gloucester
Siassi

Kandrian

Huon Peninsula
Finschafen
Tami Island

Gloucester
Siassi

Popondetta
Kokoda
Mt Victoria
Tufi
Wanigela

OWEN STANLEY RANGE
Kwikila
Kupiano

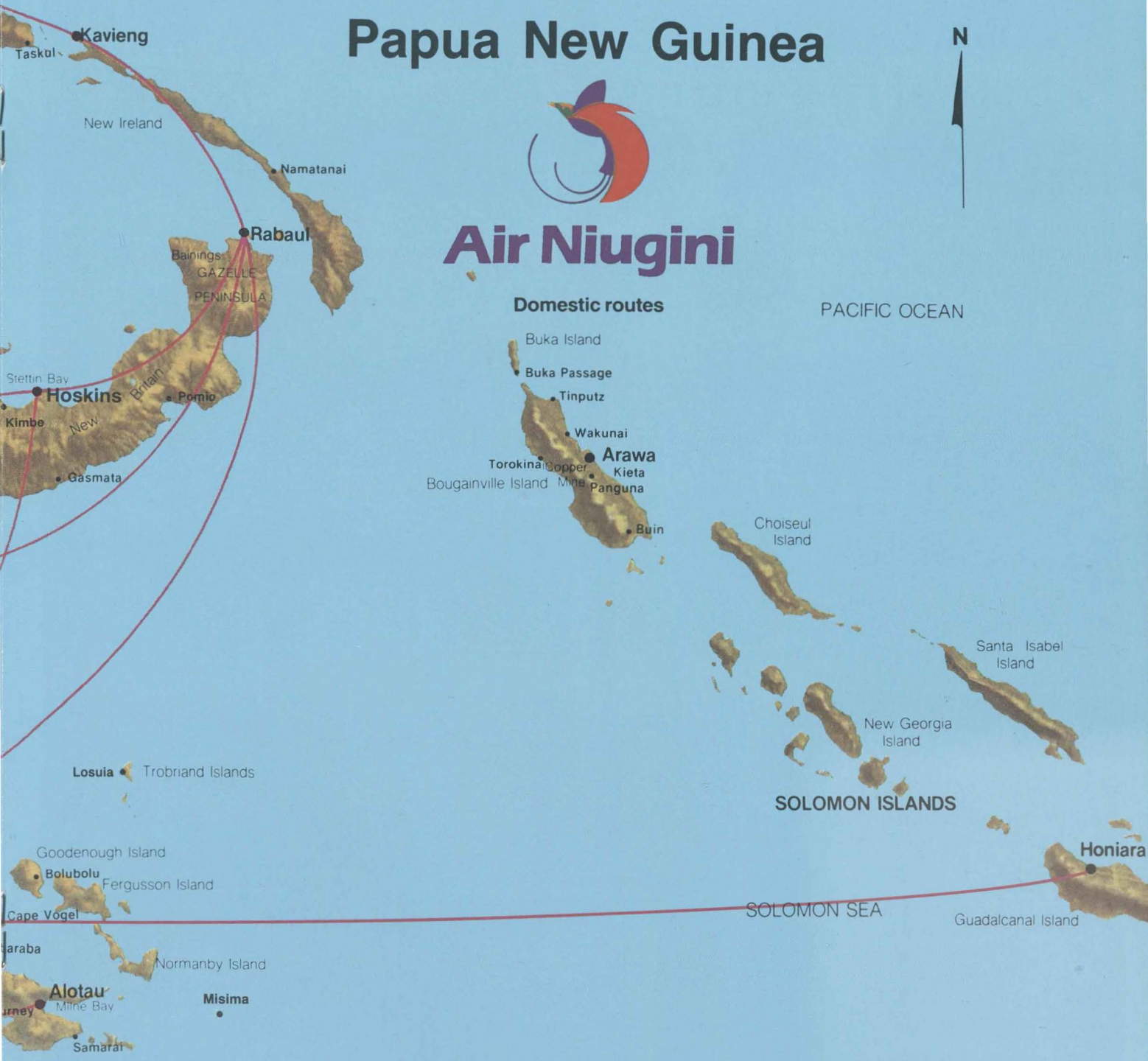
Cairns
Brisbane
Sydney

CORAL SEA

Papua New Guinea



Air Niugini



Capture the beauty of Papua New Guinea by collecting our Stamps

Highly regarded and eagerly sought by collectors around the world, our world class stamps truly are model ambassadors. Whenever, our stamps travel there is great respect and admiration by those who meet them.

To overseas friends who know our land, they surely must bring back the scent of Frangipani, the call of the Bird of Paradise and the vivid memories of festivities where our rich traditional culture is exhibited. And for those too far away to visit our Land of the unexpected, "You don't need to worry as the stamps you collect will tell it all".

Simply join our Standing Order Service. INITIAL DEPOSIT OF: AUS\$40, NZ\$50 US\$25, UK£16. For credit Card Holders of American Express, Mastercard and Visa, just quote your card number and expiry date and we will forward your requirements without delay.

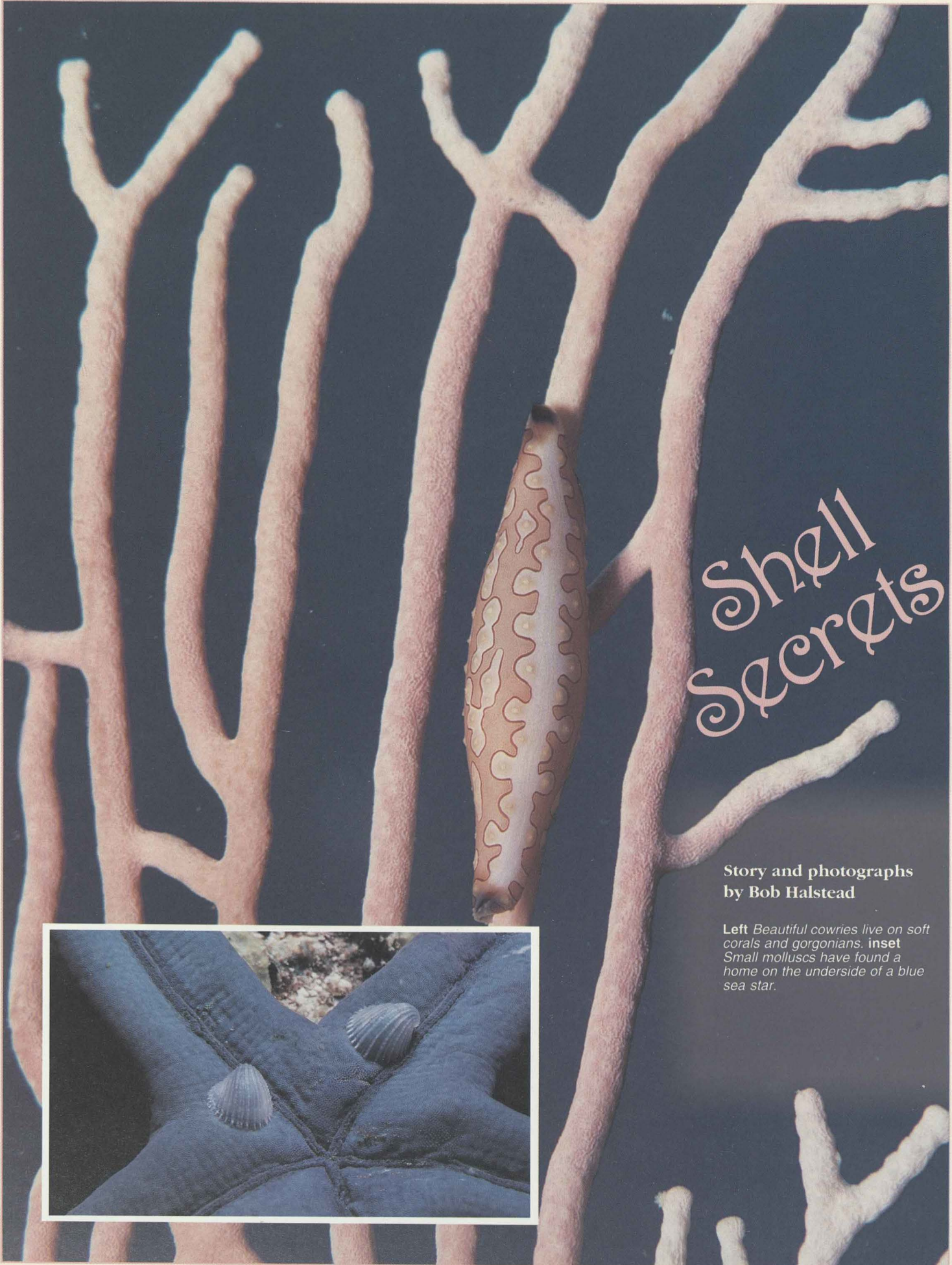
Or for general information on current and future stamp issues, write to us and ask for your name to be placed on the mailing list.

Write to: Marketing Officer
 PNG Philatelic Bureau (PM)
 P O Box 1, BOROKO NCD
 Papua New Guinea
 Ph: (675) 274170/274282
 Fax: (675) 252502

We will be happy to oblige.



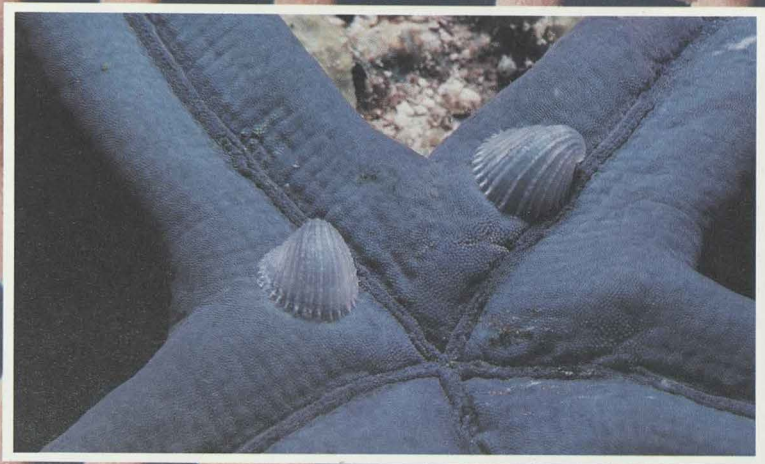
Post & Telecom



Shell Secrets

Story and photographs
by Bob Halstead

Left Beautiful cowries live on soft corals and gorgonians. **inset** Small molluscs have found a home on the underside of a blue sea star.



The beauty of sea shells has held collectors in awe for centuries. When scuba divers realised that they had easy access to these gems, shell collecting became a popular occupation underwater.

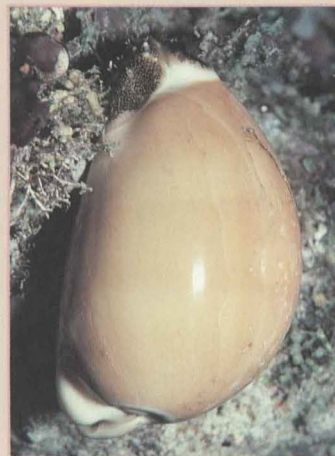
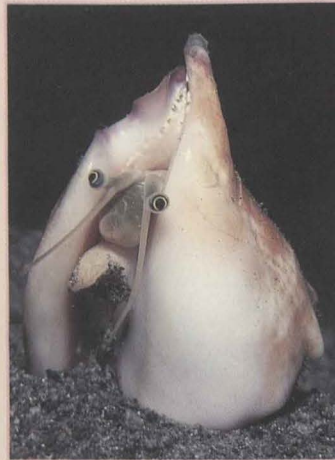
Somehow the fact that there was a live animal inside the shell was just a nuisance. The animal detracted from the shell. The animal was ugly, slimy and smelly and you were almost doing the shell a favor by liberating it from the monster that lived in it. The fact that this miserable creature had miraculously created that masterpiece of the shell was ignored and shell collecting fever became an epidemic.

I caught the same fever and my wife Dinah and I spent many hours underwater searching for these often elusive creatures. We learned that most shells become active at night and leave their daytime hiding places to graze and hunt after dark. So did we and night diving became a regular part of our lives. Every discovery was a joy and we collected the shells just as if they were valuable jewels. However it did not take long for us to wonder what we were actually going to do with all these treasures, and when one of our guests came up from a dive with a dozen tiger cowries with the intention of keeping the lot we realised we had a serious problem.

Thinking of ourselves as concerned conservationists we introduced some rules. No longer could our guests just collect whatever they felt like. Giant triton shells were banned completely when we learned that they are one of the few predators of the crown of thorns sea star which destroys coral.

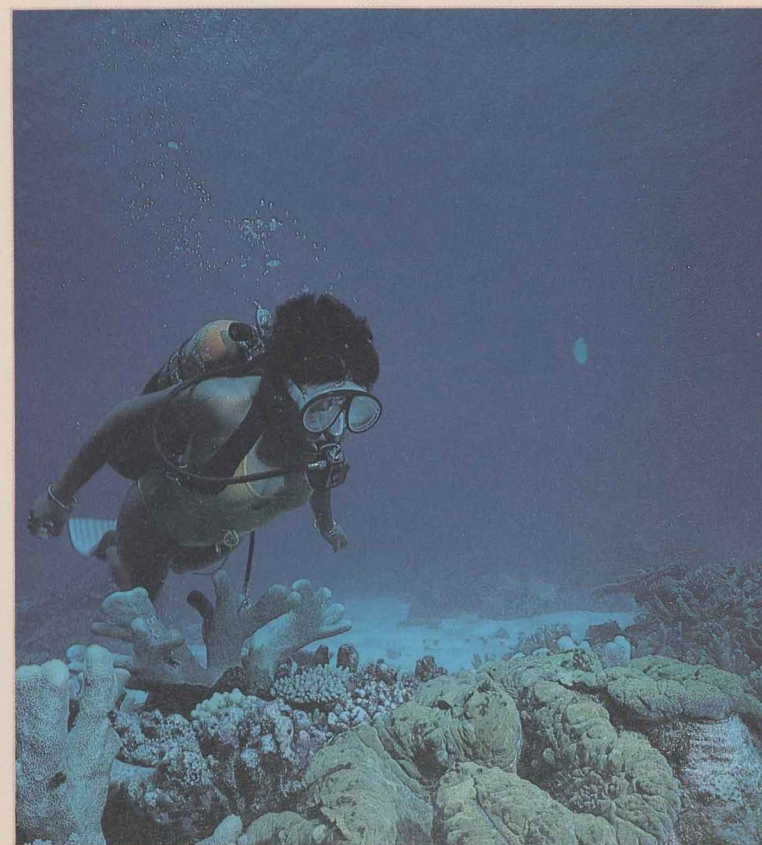
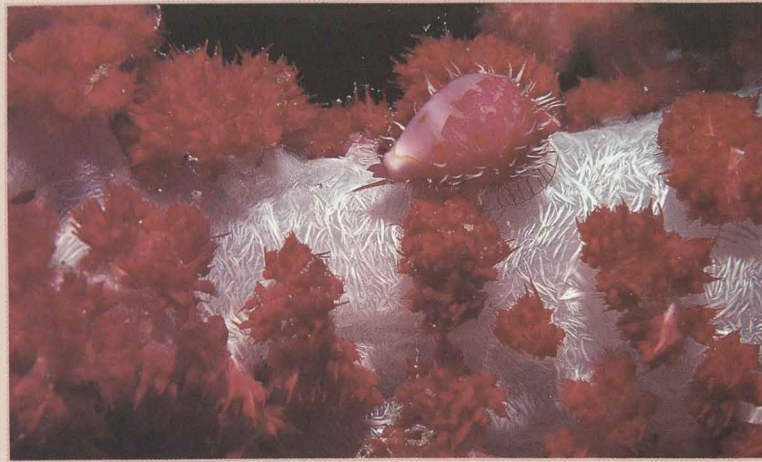
As our collection grew so our rate of discovery slowed until it became a rare occasion when we actually took a live shell. On the other hand, our experience of the more unusual tropical dive sites grew and so did our appreciation of

Right Crimson hued cowrie shelters amid equally colorful coral. **centre right** Sundial shell lives in sand. **bottom right** *Halstead* and giant clam. **below** A stromb peers from its shell. **bottom** A golden cowrie. **Facing page** Author's dive boat, *MV Telita* inset *Drupella* shells feed on live coral and damage reefs.



what incredible animals molluscs are. We learned how they are adapted to diverse marine environments and that they live in close harmony with many other types of marine creatures. As we started to think more in terms of the animal and less in terms of the shell, collecting became a less attractive proposition, so instead of grabbing, I started to photograph the living shell in its environment and found that this is even more of a challenge.

We have learned many of the tricks that shells use to camouflage themselves. The red smudge on the sunken log is not a small sponge but





a murex shell with a layer of sponge growing on its surface. The lump on the side of a read sea whip is not a deformity but a spindle cowrie whose extended red mantle has false white polyps growing from it identical to the real polyps of the sea whip. The small mound at the end of a sand trail hides an auger or olive shell waiting for the night before continuing its wanderings.

To find the white 'egg' cowrie, *Ovulum ovum*, you

have to search for a black lump since the animal is black and its mantle completely covers the white shell. Beautiful wentletraps live in the sand that surrounds the sand anemones they feed on, very rarely emerging, and the delicate *Rapa rapa* lives entirely within the flesh of a soft coral.

Some of the shells are voracious predators. I cannot forget the sight of a large bailer shell, siphon held high, hunting for other shells across

the sand. These are fast movers well able to overtake slower moving molluscs which are then seized and smothered in the animal's enormous foot.

One evening we pulled into a pretty bay to shelter from the trade winds. Sea grasses could be seen near the black sand beach and some silty coral near the rocks at the entrance to the bay. The water looked clear and we decided to night dive. It turned out we had, by chance,

found the habitat of one of the most exquisite of all shells, the venus comb murex, *Murex pecten*. This murex has long delicately curved spines radiating out from its shell like so many teeth of a comb. Or rather three combs since as the animal grows it increases the size of its shell with an extra 120 degree growth and a new set of spines. Most collected specimens have been trawled from the bottom in fish nets with the spines damaged.

We were admiring perfect specimens pushing their way straight up through the silt then wandering around the bottom. This was exciting stuff, but what we saw next was astonishing. Murexes feed by capturing other shells, boring a perfect hole through the victims shell and sucking out the flesh. Our comb murexes were moving with their siphon, with all the spines either side, raised from the bottom. Then we saw why. One had found a small clam, manoeuvred the siphon above the clam, then slammed it down and pulled down, trapping the clam in a perfect cage.

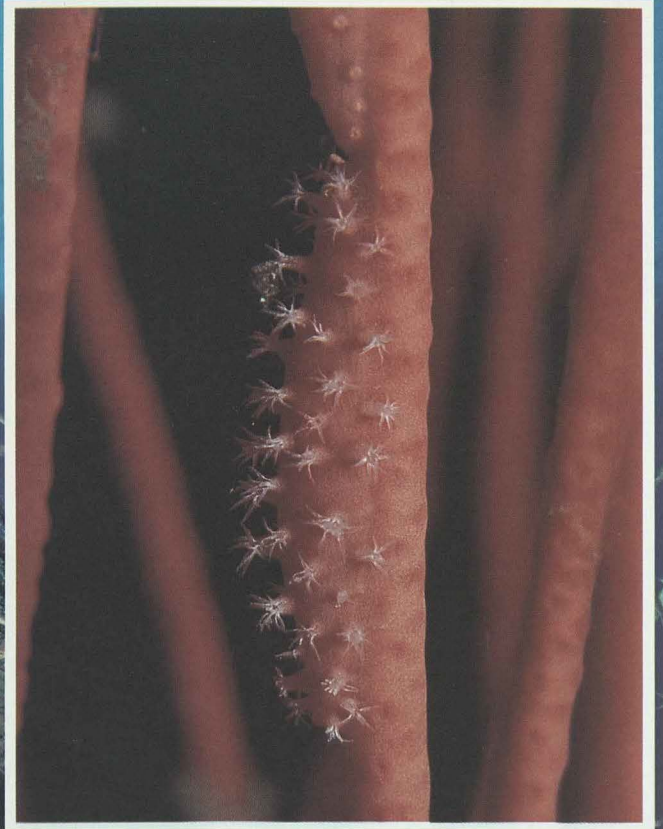
Now we do not allow any collecting of lives shells from Telita. Indeed it is illegal for non-residents of PNG to collect any living creatures from the sea floor. Live shell photography is more satisfying and I have many regrets that I did not start my photography



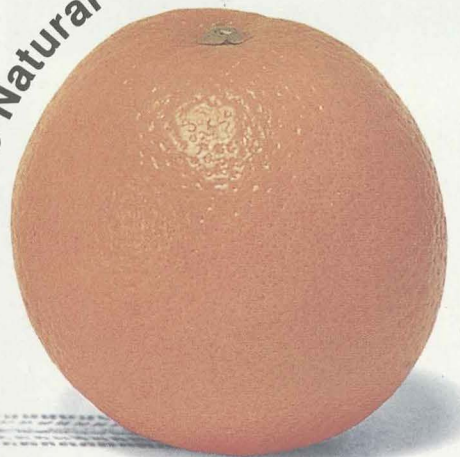
of shells sooner. What pictures I have missed!

We encourage an interest in finding shells, not just because of the challenge of the hunt and the thrill of discovery, and the beautiful photographic images which can be made, but because the very process of looking for shells changes your way of looking at the entire marine world. It is a fast track to being able to see underwater, not just shells, but all those other creatures that making diving so fascinating.

Inset right Soft coral in feeding mode. **lower inset** Harp shell showing its colorful foot. **lower left** Cowries come in many varieties.




The Natural Choice



Only one car rental company goes the extra distance for you with Papua New Guinea's most up to date fleet and simply superb service. It's The Big Orange.

Budget
rent a car



"Yours outdoors for under K40,000"

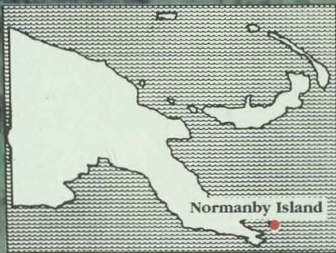
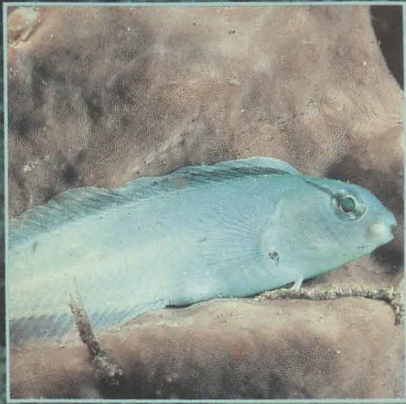
Beat the luxury tax,
test drive your new 4x4 ISUZU TROOPER today.



DDA-SAVI NGM0194

ISUZU

**NEW GUINEA
MOTORS**



Top left A blenny asleep on a sponge. **centre** Night-crowd on the pier. **right** Anemones make extra load on hermit crab's borrowed shell. **below** Pier and church at Esa'ala.

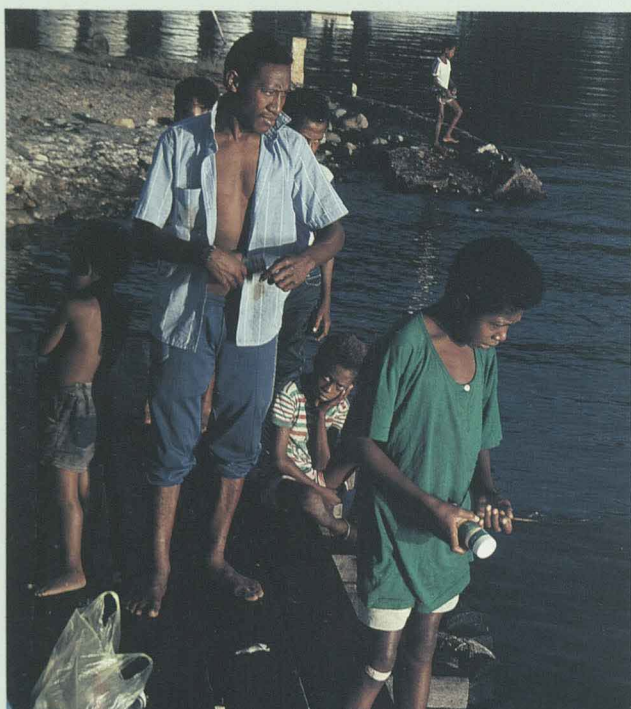
Jetties and other man-made structures are renowned for the marine life they attract. The interesting pylons and beams provide a secure, multi-level anchorage for many sedentary organisms, which in turn enhance the habitat for small fish, crustaceans and other mobile creatures. Shadows created by the structure provide further security for prey species, and at times, conceal large predators. Thus an ecological community is set up, which may be quite different from the community colonising the reef, sand or mud beside the jetty.

While surrounding areas provide their own attractions for the divers interested in biology or perhaps bottle hunting, jetties sometimes become a real magnet because of the diversity of the communities they can support. This is probably true worldwide.



PIER IN Paradise

Story and photographs by Andrew Green



Top left Pipefish. **centre** Decorator crab. **right** Hermit crab. **left** Esa'ala villagers fish from the pier. **bottom left** Underwater life at the jetty.

Esa'ala on Normanby Island in Milne Bay sports a mission, a couple of trade stores, a school and not much else. Population is maybe a few hundred. But it has a jetty; and it is important to the residents of Normanby Island.

The structure is an earth and rock pier about 50 metres long, pushed out through sandy mud, sea grass beds and the remnants of a fringing coral reef. Steel girders support a wooden deck of perhaps 20 metres by 10 metres. Depth is about five metres under the deck, although the sandy bottom slopes away quite quickly.

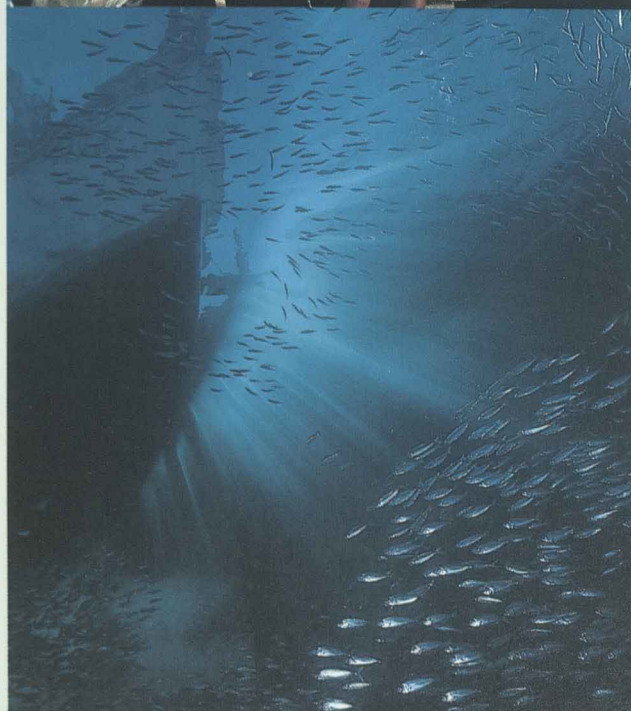
When I dived under, the water was surprisingly clear - over 20 metres' visibility. The tropical sun bore down, sending its rays searing through the blue. At the surface, leaf fish drifted past, aptly named for their resemblance to mangrove leaves and habit of swimming on their side. Sometimes the schools of baitfish turned as one, catching the sunbeams to dazzle and confuse in their brilliance, before disappearing just as swiftly. I pitied the tuna, trying to single out a couple of fish to feed on from this flashing mass.

Photographers swam around under the jetty, illuminating the gloom with their strobes. From the shadows, the world outside was blue and silver, yet the surface was clear and still, so that from underneath I could clearly make out people standing on the bow of the dive boat and the sky beyond.

As one might expect, the bottom was a veritable rubbish heap. Old tyres, broken engine parts, cans, drums, lumps of concrete, bottles and other unrecognisable objects carpeted the sand. In between, a forest of blackneedle urchins lay waiting for unwary divers. If that was not enough, fishing lines trailed from the pylons like cobwebs, or snaked through the rubble on the bottom.

Closer inspection revealed the treasures that lay among the rubbish. What at first seemed to be a profusion of corrugated rubber tubing from old gas masks turned out to be delightful sea cucumbers, waving frilly tentacles from the end of a metre or so of flexible 'tubing'. Lionfish lurked in every possible recess, while some boldly strolled about their business, oblivious to the divers. From vantage points on jetty pylons, banded cleaner shrimps plied their trade, often startlingly contrasted against a backdrop of yellow sponge or zoanthid coral.

Little boys spearing baitfish regularly joined us under the



The first bank you see in PNG



is the bank that knows PNG best

The Papua New Guinea Banking Corporation is the only bank to provide banking services at Jackson's Airport in Port Moresby, for the benefit of international travellers.

And as you'd expect from PNG's "nambawan" bank, you'll find our many branches and

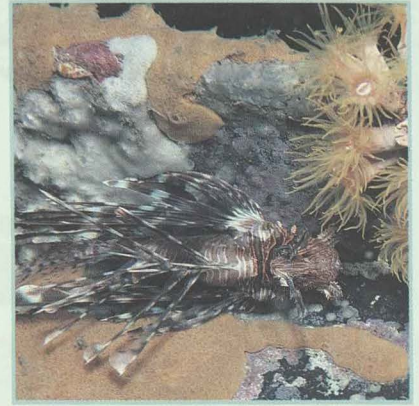
agencies right around the country, no matter where you go.

So whatever your personal or business banking needs, it pays to deal with the friendly staff at the PNGBC.

We're the bank that really knows PNG best.



P.O.Box 78, Port Moresby. Telephone 21 1999. Fax 229867 / 211954.



jetty. No tanks, fins or mask - only swimming goggles and wire spears. They zoomed noisily about, often carrying a speared fish in their mouths to their friends above.

At one end of the jetty we searched the sea grass beds for sea horses. While none were found, we did see several species of pipefish, including one sporting a red and white tail like a flag from its black and white banded body. As dusk fell, several flute mouths appeared from the deeper water, perhaps to hunt stray cardinal fish or blennies amid the rubble.

At night the scene was dominated by crustaceans. The lionfish were still around and active, along with sleeping blennies, tobies, moorish idols and others, but the hermit

crabs really stole the show. Burdened with up to half a dozen anemones firmly cemented to their homes, they scuttled and clambered through the junk, pursued by eager photographers. One large hermit even carried another crab, living among the anemones disguising its shell! Decorator crabs adopted a different technique for camouflage: they plastered their carapace with bits of sponge and algae. Unless one happened to see them move, there was little chance of spotting them.

The pipefish had changed color to a more muted, mottled appearance. The sea urchins seemed to have become more numerous, taking up prominent positions. We each had to keep firmly in mind not

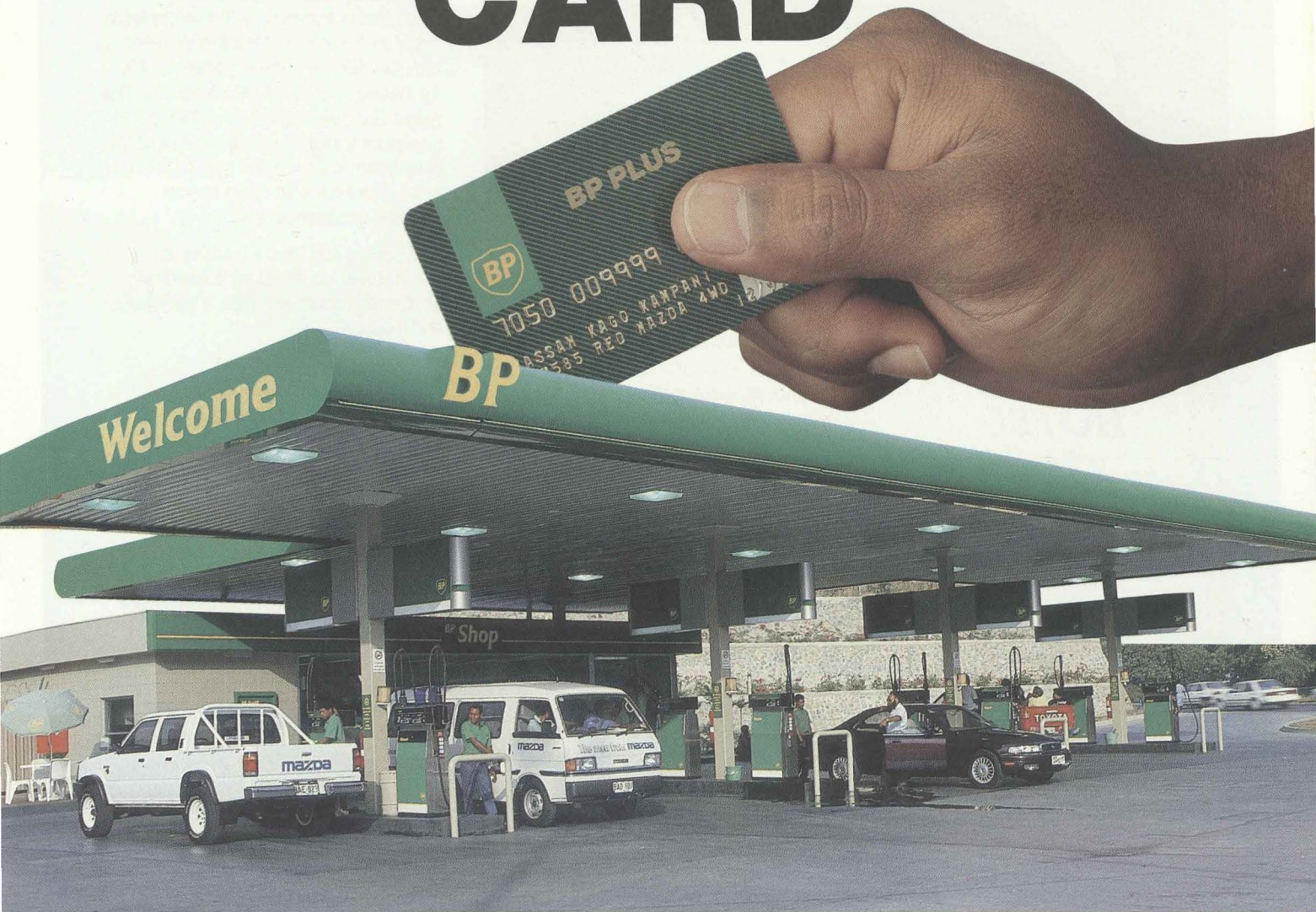
to put a hand, foot or knee on the bottom without first searching the area with a torch. A bad spike from a sea urchin spine could have meant no more diving for several days. Our buoyancy control suddenly became near perfect.

The highlight of the night's dive was a chance foray under the dive boat, tied up alongside the jetty. There, faintly visible out of the torch light was a school of flashlight fish, glowing coldly under the boat. Normally found in caves, they probably appeared from the depths nearby, perhaps seeking refuge in the boat's shadow.

We climbed out, elated at having been able to view so many fascinating creatures at such close quarters.

Top left 'Gas mask' sea cucumber. **top centre** Aptly named leaf fish. **top right** Lionfish. **centre left** Marine biologists Marilyn and Eldon Ball prepare for night dive at Esa'ala. **centre right** Sleeping puffer fish.

THE BP PLUS CARD



MAKING IT EASIER FOR YOU

The BP Plus card is the easy and convenient way to manage your vehicle fleet.

For the commercial user, BP Plus is the only system to give you full control of your running costs.

The BP Plus card solves your problems while increasing efficiency in the administration of your vehicles,
with an added bonus of all transactions being totally safe.

The BP Plus System is accepted at all BP outlets nation wide, offering you the most friendly
and efficient way to operate your vehicle fleet.



BP Papua New Guinea Pty Ltd

Lae: Ph 42 2200 Fax 42 4401 Port Moresby: Ph 21 1129 Fax 21 1553 Rabaul: Ph 92 1686 Fax 92 1918



the sun and the Lounge Bar is the place to meet friendly faces, while the Aero Bar promises a private, guests only, atmosphere.

Lae International Hotel's newly renovated convention centre caters for as many as 300 people for a private dinner or banquet, 500 for cocktail parties, or 400 for theatre or seminar style functions. The Bulolo Banquet Room also caters to guests on a slightly smaller scale and the Boardroom is popular for meetings of up to 24. The hotel also offers special package conference rates.

Sporting and leisure facilities at Lae International Hotel include a swimming pool, tennis court, aerobics, a gymnasium, and a sauna.

General services include concierge/porterage, 24-hours laundry and dry cleaning, a boutique gift shop, Lae International Travel Agency, Avis Rent a Car, safety deposit facilities and ample free car parks.

The hotel offers a courtesy bus service to and from Nadzab Airport.

For reservations and further information, please contact:

Lae International Hotel
 PO Box 2774
 Lae Papua New Guinea
Telephone: +675 42 4200
Fax: +675 42 2534


LAE
INTERNATIONAL
HOTEL

Prestigious International Hotel

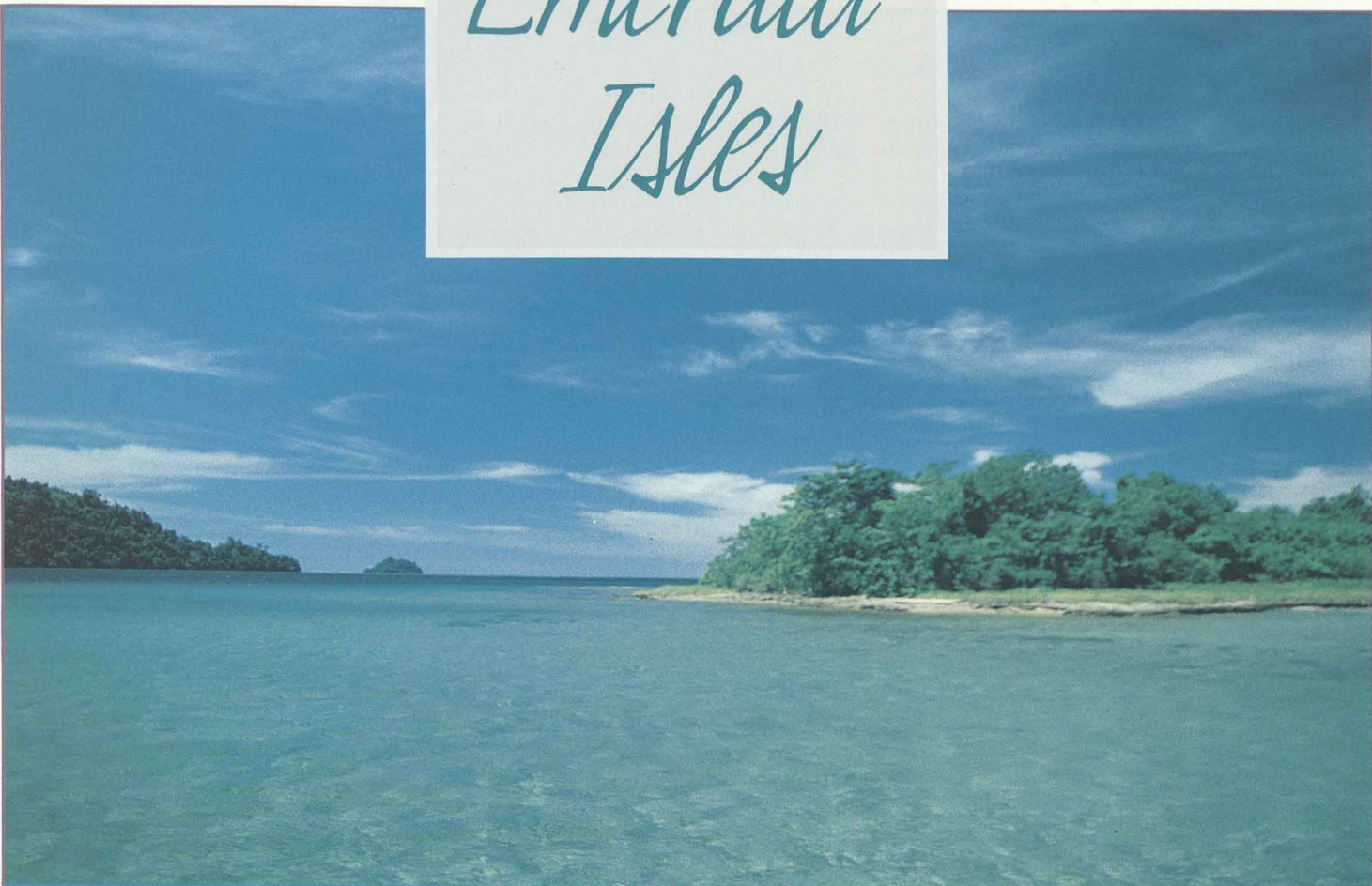
Lae International Hotel is situated in the centre of Lae City on nearly four hectares (nine acres) of beautiful surrounding tropical gardens. It offers affordable luxury for people who expect first class standards, with the added touch of friendly, professional service.

The hotel's 100 deluxe rooms, including three suites and a recently opened additional wing, feature private bathrooms, international direct-dial telephones, satellite television, in-house movies, tea and coffee making facilities, a minibar on request and 24 hour room service.

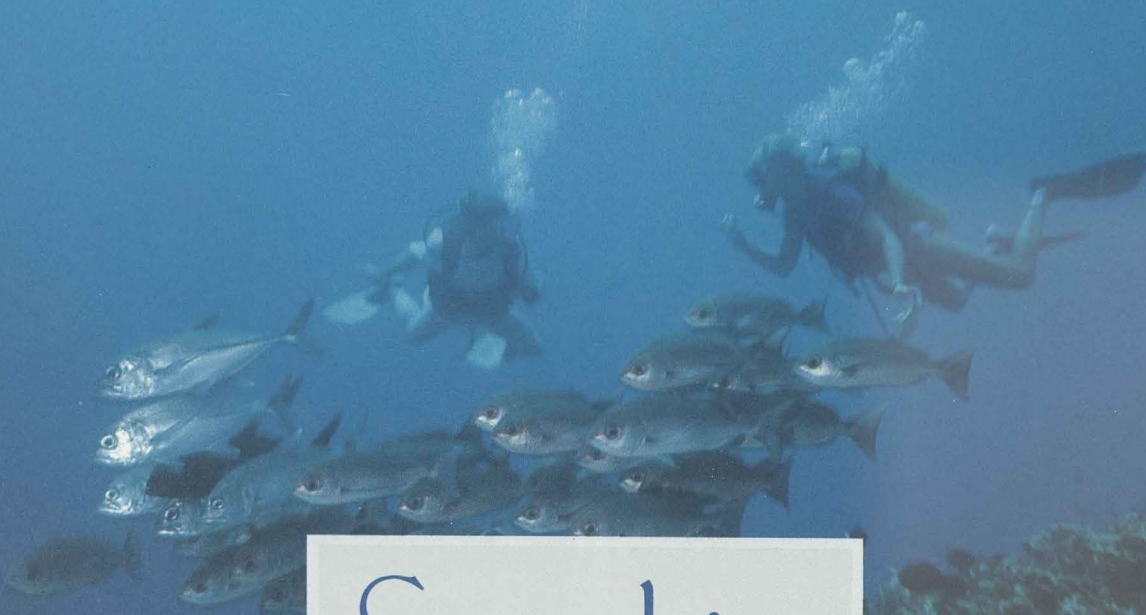
Tempting cuisine is offered at a choice of three superb restaurants. The Vanda fine dining restaurant has tantalising, world class cuisine in a selection of local and international dishes. The International Coffee Shop is less formal, with the emphasis on speedy service, and the Pizza Restaurant continues to be a favourite for relaxed, casual dining or a meal on the run. Poolside barbecues on weekends are a relaxing way to soak up



Emerald Isles



Above PNG is a tropical paradise.
right Schools of fish follow divers
at Walindi Plantation Dive Resort.



Sapphire Seas

Story and photographs by Rick Tegeler

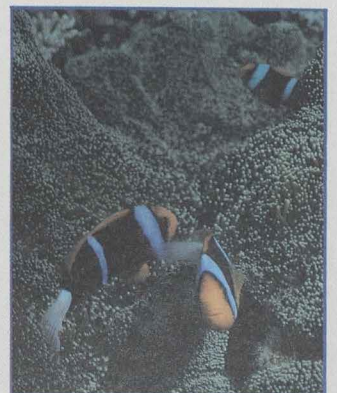
Having sailed through Papua New Guinea's China Strait into the Solomon Sea, with the Big Dipper and the Southern Cross as our celestial shepherds, each day and successive dive became the stuff of legend. We experienced more quantities of fishes in more varieties on three distinct occasions than any of us had ever been privileged to witness elsewhere in our world dive travels.

The scenery above water was as great in its diversity as that of the coral kingdoms beneath our hulls. On many occasions between dives, I turned completely through 360 degrees witnessing a surrounding horizon filled with towering volcanic peaks imposed above extended shorelines, lush, tropical islets, reef tips crowned with white sands; and the incredible sapphire sea.

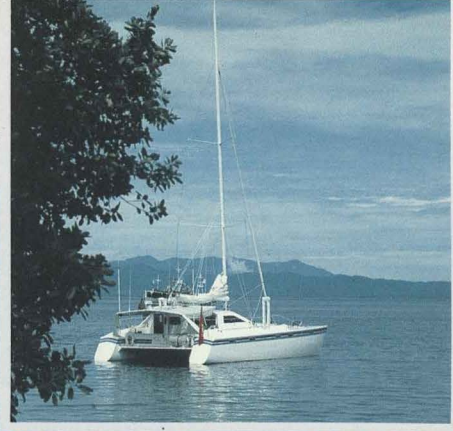
My sense of this vast oceanic wilderness was of wonder and

delight that more than 10 lifetimes of watery exploration might be expended and still one would not complete the survey of this marvellous area. After a few, tantalising diving days in the Solomon Sea, we reluctantly boarded our flight leaving the small, bustling port of Alotau in Milne Bay for the short hop back to Port Moresby and the flight to Rabaul where the second phase of our adventure was to begin.

Rabaul, gingerly resting on the rim of an enormous,



Above Restof Island near Walindi, lower left Clownfish, centre Nudibranch, a sea slug, on an orange sponge, right Clown damselfish.



flooded volcanic caldera, is one of the scenic wonders of the South Pacific. A family of active volcanos continues to threaten this idyllic setting. Violent eruptions have occurred in this area with some regularity throughout the last 150 years and a threat in 1984 had the peoples of this, the Gazelle Peninsula, poised for a fast exodus.

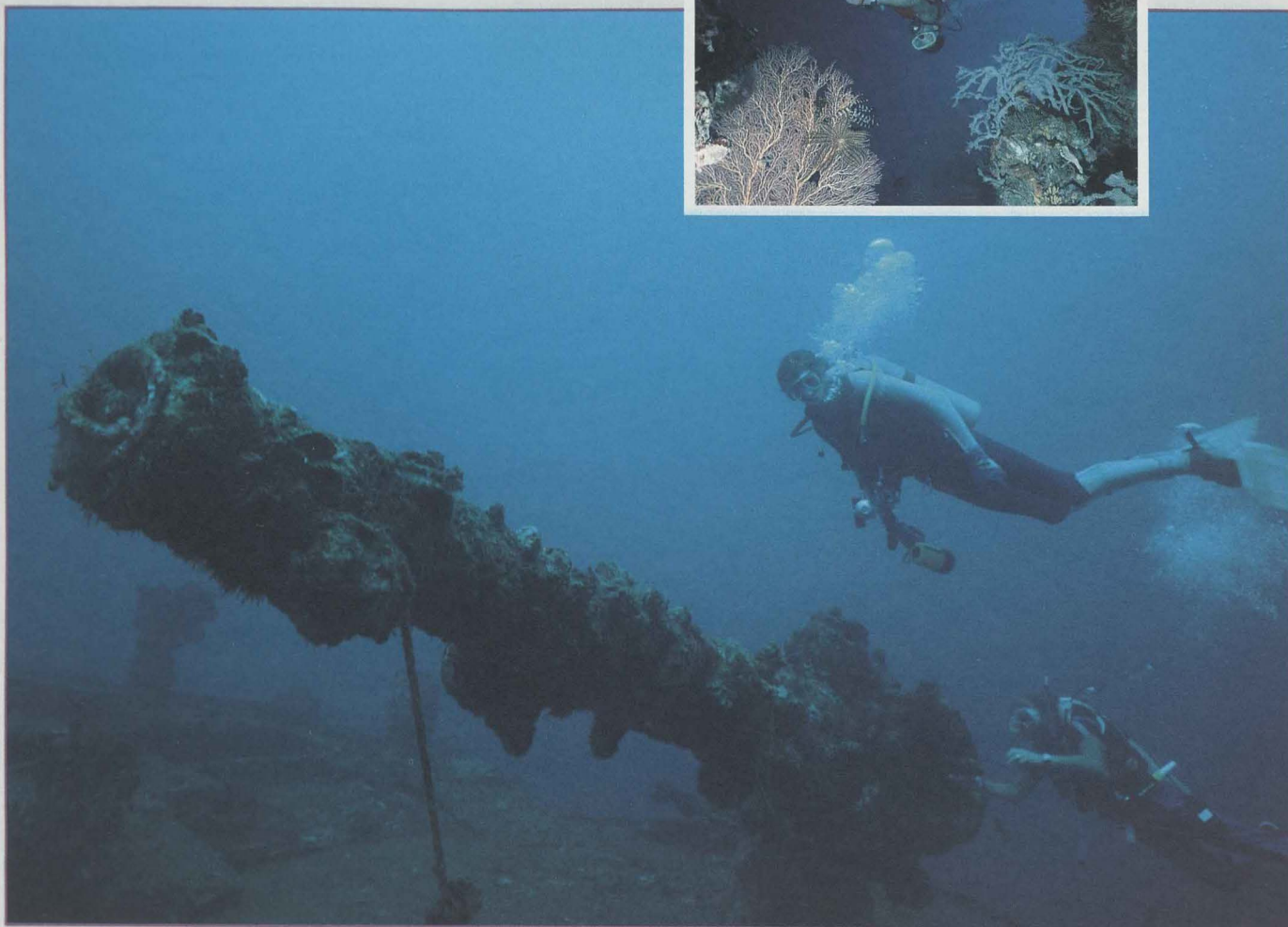
In early 1942, despite such earthly warnings, Japan successfully invaded Rabaul, intending for it and its geologically protected harbor to be a mighty overseas fortress, major supply base and a deciding factor in its WWII strategies. Some 97,000 Japanese soldiers occupied this area at the height of hostilities.

By virtue of his hard-learned experience at Guadalcanal and Buna, General MacArthur and the allied forces in his Pacific command would avoid further head-on confrontations with the Japanese for the remainder of the war. Rabaul was simply by-passed by the allied offensive campaign, subjugated to impotency by a continuous deluge of bombs dropped from the air.



Top Dive boat Taleo Tambu in Milne Bay. **left** Clear, nutrient-rich waters of PNG. **above** Lunch is a 20kg yellow-fin tuna landed by skipper Alun Beck.





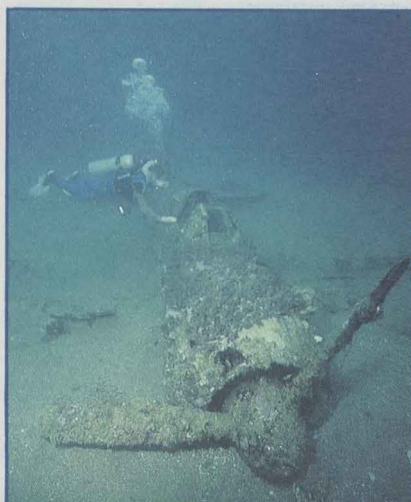
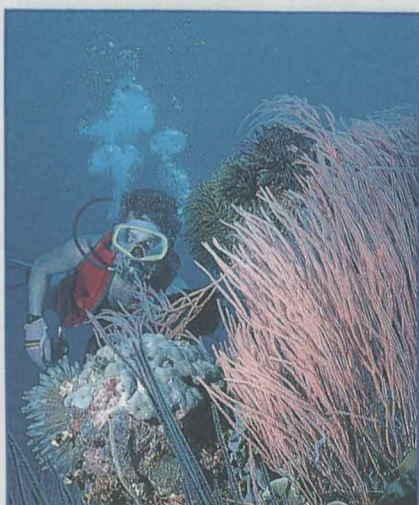
Eventually, the entire city was flattened, driving its inhabitants to a mole-like existence in hand-dug tunnels. In addition to this devastation ashore, some 60 Japanese vessels were sunk in the downpour of bombs. To dive their ghostly remains was the main focus for this part of our PNG visit.

Most of the wrecks lie on the flooded interior of this ancient, volcanic cone and its geography was typical - sheer dropoffs along the sunken rim gradually sloping to a common depth at the centre. In Rabaul, it is not unusual to encounter depths of more than 30 metres within 10 metres of shore.

Due to this acute depth,

wreck diving here is not for the beginner or novice. All of the wrecks we explored were well over 30 metres deep. Together with the extreme depth and effective post-war salvage efforts, many of the usual attractions such as coral growth and artefacts, found on similar, diveable wrecks of the world are not in evidence here. Nevertheless, it is a jaded diver who will not experience the chill of devastation and melancholy of waste evidenced by these devastated hulks.

A spectre of fear from the past visited us one afternoon as we decompressed at three metres after a particularly deep excursion to the Japanese merchantman, *Italia Maru*. A half-century old, but very much alive, bomb exploded in the wreck's innards directly below us as we hovered unsuspectingly just below our dive boat. The muffled



explosion jarred us all with the reality and keen awareness of how frail our existence truly can be. For the sheer rush of excitement, this certainly got our attention! Following this event, I spent my remaining decompression time immersed in private contemplation and in awe of the history the water around us had been witness to.

The beauty, diversity and history of Rabaul, above and below water, is a 'don't miss' for any visitor to PNG.

The third and final leg of our tour found us deposited in the midst of one of the world's lushest rain forests which surrounds the small towns of Hoskins and Kimbe in north central New Britain. From the airport, we were driven 65 kilometres along the tip of a northern thrusting, volcanic peninsula, bordered by the Bismarck Sea. Our destination



proved to be a working palm oil plantation with the magical name of Walindi.

This melodic name does justice to the harmony with which Max and Cecily Benjamin have carved and cultivated their 200-hectare wonderland from the wildness of the jungle around them. Rivalling many of the most remote and romantic locations in the world, Walindi is scenic

seclusion. There are only six guest bungalows nestled 10 paces from the beach, great food and wonderful hospitality. The Benjamins and their Walindi plantation create a cosmopolitan gathering place for those wonderful characters found only in the tropics and, to use an overworked but absolutely accurate cliché, world class diving.



Facing page, top Diver examines 2m gorgonian fan. **centre** Exploring the Hakkai Maru wreck in Rabaul Harbor. **bottom left** Sea whips at Walindi Plantation. **bottom right** Remains of Japanese Zero warplane on Rabaul Harbor bottom.



Top left False moorish idols. **top right** Lionfish. **centre left** Walindi Plantation, the ideal romantic tropical retreat. **bottom left** Young village men observe visiting divers. **left** Vertical drop-offs to incredible depths are feature of Walindi diving.

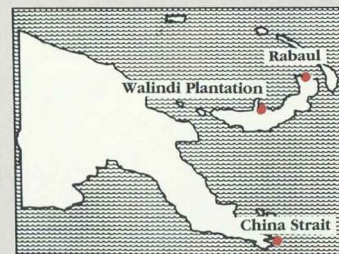


We swam along massive coral cathedrals whose walls dropped vertically more than 1,000 metres. Water color was an incredible deep, oceanic blue, laced with velvet indigos, reducing to the mysterious greys the deeper we ventured. Water temperature averaged 29 degrees Celsius.

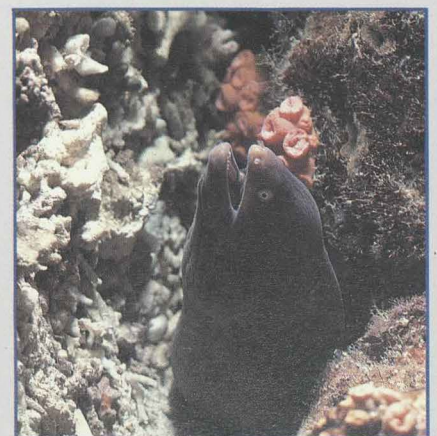
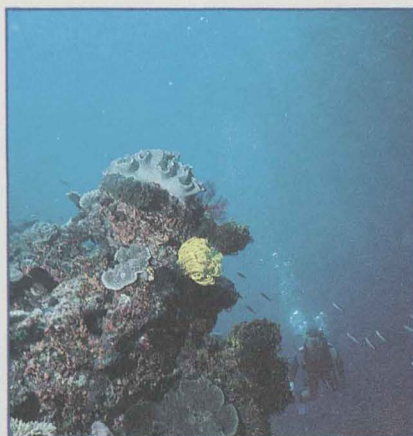
We marvelled at myriads of coral trees and gorgonia, sometimes two and three times our own length. Schools of trevally, barracuda, dogtooth tuna and jacks would leisurely accompany us on swims through this fantasyland. Rainbows of reef fishes and carpets of anemones festooned the reef tops and coral outcroppings. Colorful crinoids, curious cuttlefish and an occasional reef shark were lumped together in these gathering places for nature's abundance.

The sheer numerical presence of these living

treasures provided us tangible proof of an incredibly vibrant, healthy environment. On the surface, thermal currents, born in equatorial heat and nourished by dense jungle blessed us with an endless cycle of brilliant blue sky, wonderfully changing cloud formations, occasional afternoon rain showers and postcard sunrises.



Top Sunset on East Cape. **centre left** Islets jut out from the sea in Rabaul Harbor. **centre right** Coastal freighter crosses calm waters of Rabaul Harbor. **bottom left** Pristine waters and reefs abound in PNG. **bottom right** Moray eel guards his lair.





*THE BEER OF PARADISE...
SOUTH PACIFIC EXPORT LAGER*



TREAS

Well I haven't given up on the treasure, by Neptune! I'll settle for a bronze cannon! But the passion has dimmed. I have been lured away from diamonds and sapphires to some little fishes, just as beautiful, but rare and even harder to find and capture on film. These are dwellers of the precipitous



It has always been a source of regret that I have never found a treasure ship wrecked in Papua New Guinea. No silver bars nor emerald studded crosses on gold chains for me. Not even one measly piece of eight.

So when people tell Dinah and myself how lucky we are to own our beautiful dive charter boat Telita, I think about this and usually growl something about 15 years' hard labor.



deep reef walls that define much of PNG's continental shelf.

One of the reasons that diving is so good in PNG is that water hundreds of metres deep can be found very close to the shore. The deep water prevents siltation and keeps the water clear, and the chemical-free run-off from shore provides nutrients to feed the reefs. Marine life is abundant and diverse and a constant source of wonder. There are so many different species

SURES

Story and photographs
by Bob Halstead

Top left Sand tile fish at 60m deep. **centre left** Male Randall's sea perch at 50m. **bottom left** Yellow lined anthias at 50m. **below** Red sea perch at 50m **bottom right** Cave butterfly fish at 40m.



of the DEEP

in PNG waters that it has taken Dinah and I 20 years to become familiar with them and be able to recognise which creatures are common and which are rare finds.

Over the past year we have been venturing deeper down the coral walls. The process started innocently enough when Dinah noticed a fish she had not seen before on a dive which was a little deeper than usual. So we decided to plan for some deliberately deeper dives in likely locations and to study, and attempt to photograph, what we saw.

For scuba divers breathing air and diving in the friendly warm waters of the tropics, 30 metres is considered by most divers to be the start of deep diving, with 40 metres the limit. However it is possible for very experienced divers to safely dive deeper than that and, with the right equipment and techniques, make dives to 60 metres. The deeper the diver goes the bigger the risk of nitrogen narcosis, 'rapture of the deep',

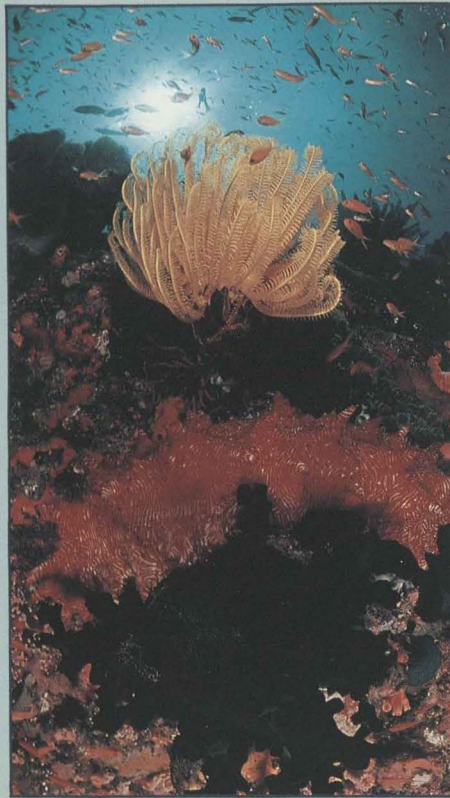
impairing judgement or even causing a diver to become unconscious. We therefore gradually increased our depths and were very aware of any symptoms.

The dives varied. On some days our heads were clear and on others we never made it to the planned depth as we started to feel groggy and aborted the dive. As we acclimatised, the groggy days became few. Deep diving also increases risk of decompression

sickness, known commonly as 'the bends', so we carried multiple diving computers as additional safety factors. Because it would be difficult to survive running out of air at those depths, we also carried a separate small tank of air with its own breathing regulator attached which had enough air to get us safely to the surface if the main supply failed.

Deep diving is a very serious affair which may be equated with mountain climbers attempting Mount Everest, or sailors attempting solo around the world cruises. It certainly is not 'fun' and very careful preparation and training are called for. Some divers have survived even deeper dives - the world record is deeper than 130 metres - but many have not.

A very good reason is needed to assume the risk of the deep dives and the motivation for us was the

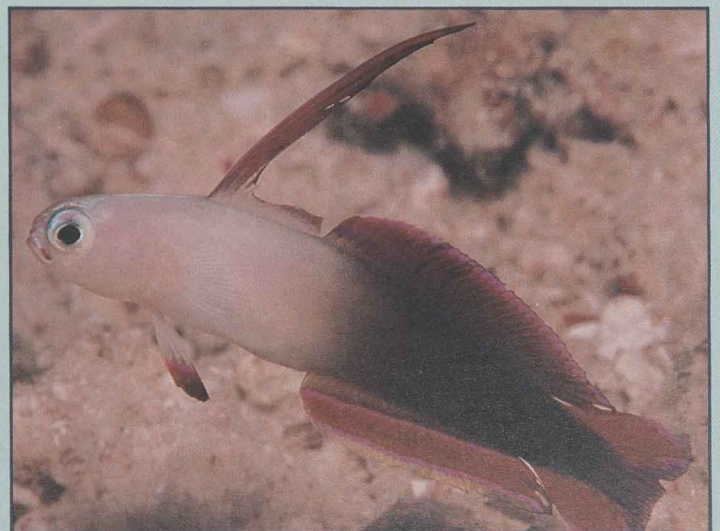


discovery that virtually nothing was known about the marine life that lives deeper than 50 metres. We started to find exquisite fish that, where we could find an illustration of the animal, was usually a photograph of a dead specimen. So we were able to photograph these brilliant creatures alive in their natural habitat, probably the first to ever do so. We also were able to photograph a few fishes that we were unable to get identified, which are probably species new to science.

At 60 metres in the astoundingly clear water that is common at that depth we realised that we were just on the brink of a region of mystery that awaits discovery. To dive deeper, as much as we desired, was too much of a risk. So now I have to try to find a submarine to probe the deep reef. If it was gold bullion we were after I have no doubt we would have offers aplenty; alas it is just a few little fish, living jewels of the deep.

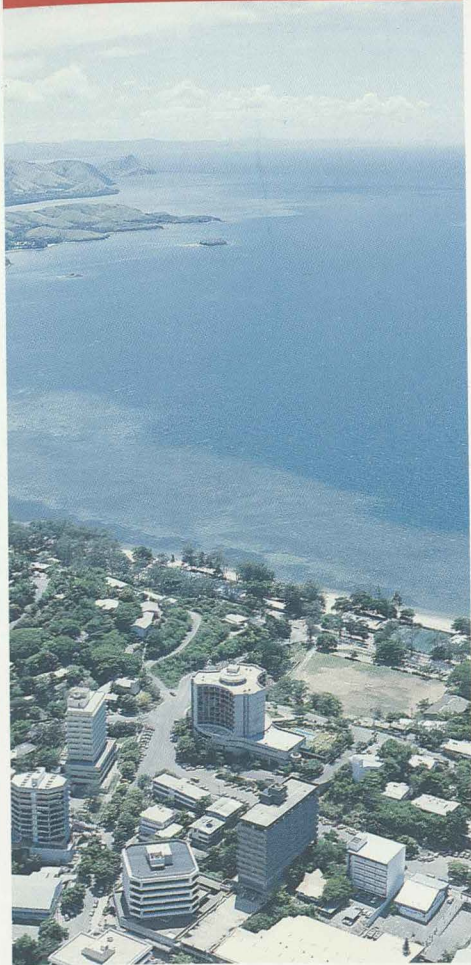


Top Deep Reef. **left** Striped anthias at 50m. **bottom left** Female Randall's sea perch. **below** This deep water firefish with elongated dorsal filament is probably a species new to science.



Travelodge
PAPUA NEW GUINEA

Port Moresby
Travelodge



business

With panoramic views of the Pacific Ocean overlooking Port Moresby City Centre, the Port Moresby Travelodge is the hub of business and social activity.

A truly first class hotel with friendly and attentive staff that offers everything for the business and tourist traveller.

FOR AIRPORT TRANSFER AT PORT MORESBY CONTACT AVIS RENTAL DESK

Port Moresby Travelodge Ph: (675) 21 2266
Cnr. Hunter & Douglas Streets. Fax: (675) 21 7534
P.O. Box 1661, Port Moresby. Telex: NE22248

Papua New Guinea has three superb Travelodge Hotels.



Rabaul
Travelodge

pleasure

Rabaul is a tropical island paradise with spectacular volcanic ranges, sandy palm lined beaches and deep turquoise lagoons.

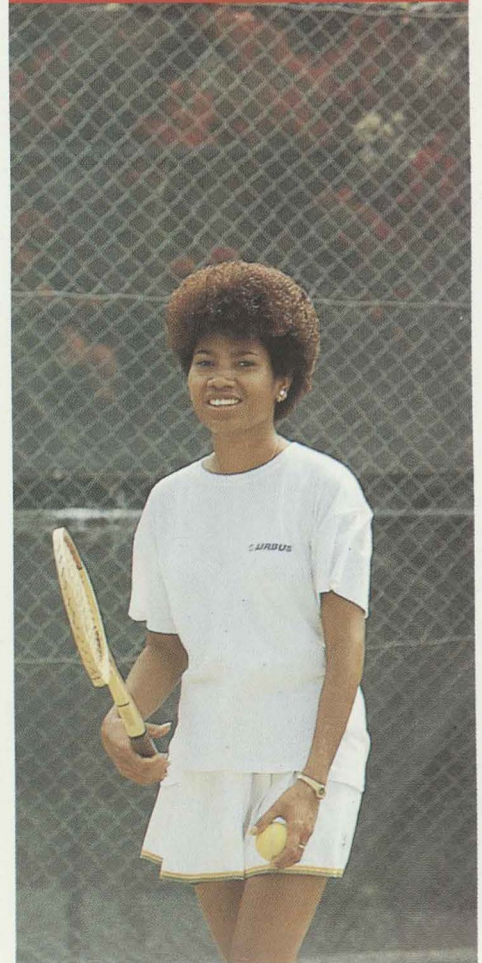
Nestled on Rabaul's waterfront with sweeping views of Simpson Harbour is the Rabaul Travelodge.

Spectacular diving or tours of wartime relics make your stay a most memorable experience.

Rabaul Travelodge
Mango Avenue, Rabaul.
P.O. Box 449, Rabaul, ENB.

Ph: (675) 92 2111
Fax: (675) 92 2104
Telex: NE92975

The Islander
Travelodge



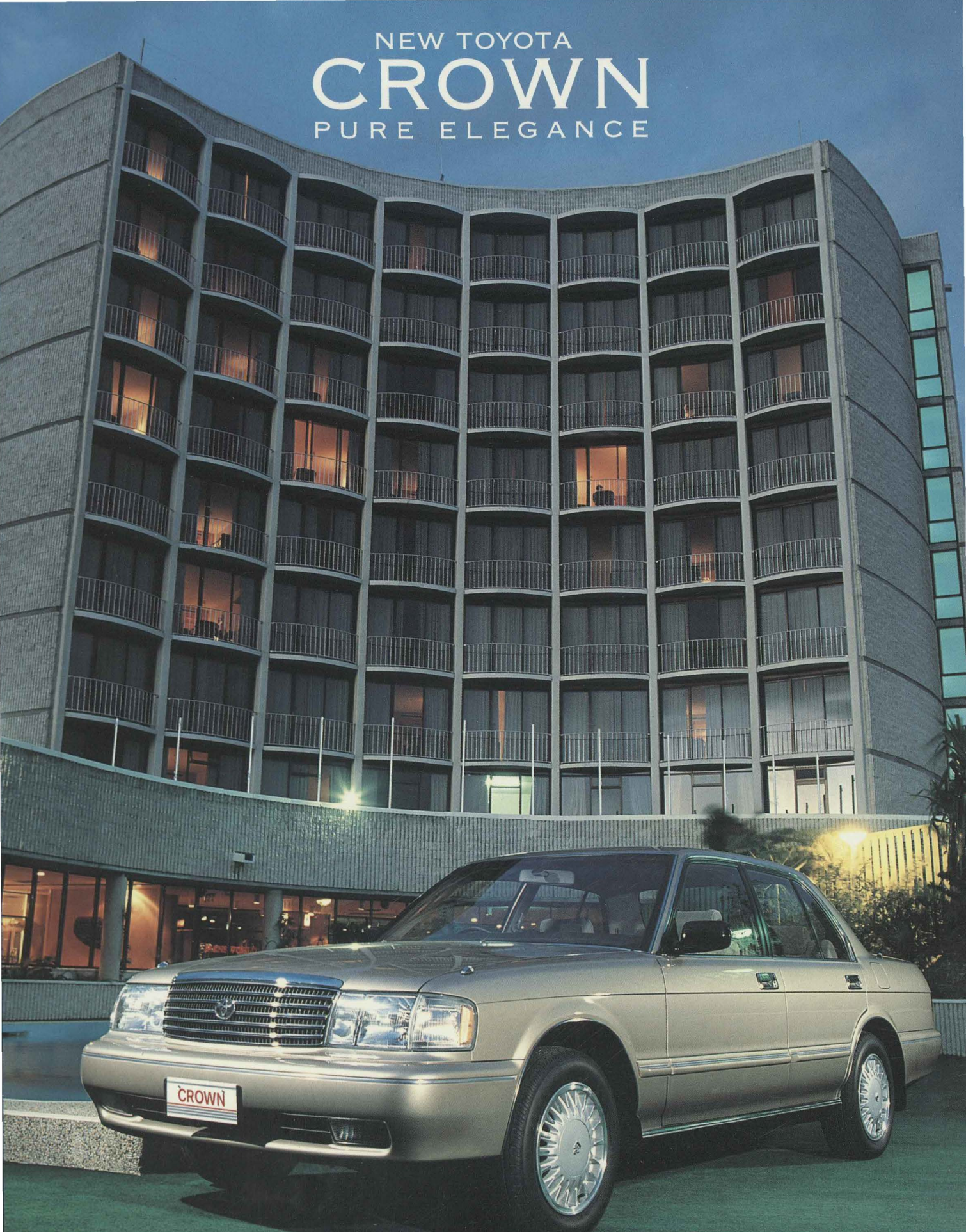
recreation

The luxurious alternative for the business traveller or visitor is The Islander Travelodge Port Moresby, situated at Waigani on 12 acres, surrounded by tropical gardens, The Islander Travelodge boasts two full size tennis courts, four squash courts, garden pool and gymnasium.

The Islander Travelodge
Waigani Drive, Hohola
P.O. Box 1981, Boroko.

Ph: (675) 25 5955
Fax: (675) 21 3835
Telex: NE22288

NEW TOYOTA
CROWN
PURE ELEGANCE



 **TOYOTA**

Ela Motors