



Introduction:
**POOR KNIGHTS LIBRARY : OCEAN
GATEWAY**

Wade Doak

Early Days at the Knights

As space rockets gave access to a sterile moon, Cousteau 's aqualung technology enabled ordinary people to explore a new world teeming with alien creatures. Until the sixties the vibrant life of steep walled ocean islands was virtually unknown. In the sixties there was an avalanche of discoveries as Kelly Tarlton, Jan Doak, myself and a small group of scuba divers first finned an undersea realm humans had never seen. For the first scuba explorers of the Poor Knights every dive was like an excursion on a planet abounding with rich and strange life forms. To document this period I offer facsimile pages of the magazine I had been publishing for many years: **Dive** .The initial task was to identify and label: the taxonomic phase.

Poor Knights Ecology

In the next phase, with our own dive boat, Jan and I were able to attract scientists to join our explorations:a new breed of young Ph.D. students, all fully trained scuba divers, became our companions. While they undertook a series of behavioural and ecological studies,I documented their work with word and camera.

Eventually we attracted the attention of Cousteau-equivalent scientist and film-maker Dr Walter Starck with his own undersea research ship **El Torito** and yellow submarine. After a lengthy, adventurous expedition when we were able to actually live at the Poor Knights, the television documentary 'Islands of Friendly

Fishes ' was made, described in my book 'Sharks and Other Ancestors ' .

Dolphin Encounters at the Poor Knights

In 1975 at a stage where I had recorded on still camera most of the Poor Knights marine life, diving alone in a huge sea cave, dolphins burst into my scene -a province hitherto cetacean-free. Until that time for divers dolphins had been a "hello/goodbye " experience,,-"thank goodness it wasn't a shark!"

My second encounter with dolphins was so dramatic, so shattering, Jan and I were convinced to devote ourselves to a special ten year study of diver /dolphin interactions, with a catamaran especially fitted out for encounter. This culminated in the film **The First Move** and four cetacean books.

A Decade of Intensive Video filming

After strenuous efforts to document animal behaviour with still camera and 16 mm movie with the limitations of such media, I yearned for the technology to capture the kinetic

aspect of the Poor Knights undersea world. With the nineties, thanks to T.V.N.Z.(and later my own equipment) high quality video provided the perfect tool. For an entire year Jan and I were able to record the seasonal changes in a 'city under the sea ' and examine in detail the lives of fishes.*

For the rest of the decade, with our own equipment we continued to video and photograph the Poor Knights in great detail, building up a picture of each major habitat /diving location and a growing cast of weird and wonderful creatures, until we could present a synthesis: a picture of the Poor Knights like an undersea Louvre Museum with multiple galleries and changing exhibitions. And so, following the adventures that video filming creates, my studies of the Poor Knights have evolved to the present: the new millennium which the Poor Knights has entered as a total sanctuary-one of the most significant in the world. The best is yet to come...

T.V.documentaries

Masters of Inner Space

City Under the Sea

Poor Knights Marine Invertebrates: The Cliff Dwellers

To interpret the swarming tapestry of life on the Poor Knights cliffs, I had to create my own 'book ' .In consultation with eminent marine scientists, such as Dr W.Ballantine at Leigh Marine Laboratory,Dr Allan Baker of the National Museum and Drs Tony Ayling, Roger Grace and Barry Russell, among others, I developed a basic framework for understanding it all: a guide to the nine major phyla to which Poor Knights Marine invertebrates belong and a simple pathway

whereby the amateur could assign life forms to their correct phylum, thereby understanding their form and function within an ecosystem. This text published as *Beneath New Zealand Seas* and revised as

The Cliff Dwellers,

became a classic and was well received overseas. A lecturer in Melbourne told me it could have been called *Beneath South Australian Seas*. The operator of an underwater observation chamber for tourists in Milford Sound recently told me it is their "bible". Since all the examples are drawn from the Poor Knights this indicates how universal the islands' marine life is, when examined at a basic level. For the most part, to go further towards species identification is beyond the lay person's needs.

Poor Knights Fish Community: City Under the Sea

Fishes are our distant relatives, the first vertebrates and at a basic level we share a surprising amount with them, both in physiology and social organisation. When aeons ago primitive fishes moved from swampy shores onto reefs they found survival opportunities that abounded in successive layers; realms where every cubic metre is productive, providing a huge range of niches - a multi-level city.

With their adaptable, flexible bodies fishes rapidly began to specialise and diversify. To meet every new challenge shapes, sizes and lifestyles were transformed. A community of creatures evolved with a complexity and variety unmatched in the natural world.

My picture of a complete fish community at the Poor Knights is universal enough to give an understanding of any reef community in the world, while sufficiently representative of New Zealand's coastal fish fauna to provide the illustrations for my two books on New Zealand coastal fishes.

I arranged the Poor Knights fish species in ecological groupings or "guilds", much as humans in a city: from plankton pickers to bottom kissers; plant grazers and predators; day shift and night shift. With lively anecdotes based on direct observation by myself and many others, this treatment of "cold fish" offers new insights into the complexity of their lives, showing that they have surprisingly good terrain memories; a coded 'language'; individual personalities; that all members of one locality recognise each other and certain species, immune to predation, provide services for others.

I conclude that the community of fishes at the Poor Knights is a primitive blueprint for our own society.

Fishes of the New Zealand Region

Wade Doak's World of New Zealand Fishes

Poor Knights Top Diving Sites

The next book is an ecological description of major habitats at the Poor Knights, presented as top dive locations and described in detail each with the immediacy of a single dive, along with insights gained from multiple visits through changing seasons and climate. For the visiting diver and the lounge chair explorer these undersea windows provide a vivid experience of the Poor Knights diversity and the dynamic forces that shape and determine its variety of habitats.

It became my thesis that the Poor Knights represents something universal in the world 's oceans: its unusual variety of tunnels and archways compress the marine life of long stretches of sea coast within a single dive. Conversely, its multiplicity of caves and cul de sacs condense the living conditions of great depths into snorkel range. In this respect the Poor Knights can be seen as a microcosm of life on our blue planet; a gateway to understanding its complexities. In setting out to describe the ecology of such a complex system, I offer this work in the context of my previous books which described the inhabitants, invertebrates and fishes.

A Year at the Poor Knights

To complete the picture I looked at the cycle of seasonal changes at the Poor Knights from spring to winter. Records back to 1968 show the sequence of events over the Poor Knights year, from the spawnings of fish and nudibranchs to the arrival times of visitors such as giant salps, paper nautilus, stingrays and groupers. Then I drew up "what 'shappening at the Poor Knights " timetables and looked at how these events vary from year to year due to climatic variations.