

(Clapham et al. 1962). Material is closest to E. palustre L., the marsh horsetail (Clapham et al. 1962). Features it shares with this species are the scarious, white margins of the sheaths, single sheath rib, and 6-8 grooves (not 14-30 as in E. fluviatile). For these reasons material in WAIK and MAF have been determined as E. palustre. This identification awaits official confirmation, so live material and further specimens have been forwarded to WELT for further investigation by Dr Brownsey.

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MY ADVENTURES WITH THE TWO LUCYS - PART TWO THE POOR KNIGHTS

Katie Reynolds

As a young child I used to hear my parents discussing trips that they had had out to the Hen and Chickens. They always made it sound as though they had been to Heaven! Sometimes they took me with them. On the occasion which I shall now describe I was not yet four years old; yet

I can remember clearly that magical night.

They were anchored on Coppermine reef, fishing. I had been fast asleep on my bunk, but they wakened me and carried out to the cockpit, there to see a wonderous sight. All around us were the sounds of the restless sea - the hush-hush around the shorelines, the conkle-conkle of the water under our keel, and the general comforting sounds of a ship on a secure and calm anchorage, albeit sounds and movement subtly different from those experienced on a harbour anchorage.

On this lovely night it was bright moonlight. The island looked mysterious and beautiful. Kia Koa, and her name means "be joyful", was anchored right over the reef. Looking down through the crystal clear water we could see different strata of fish swimming in shoals, the lowest stratum being the huge shadowy shapes of several large hapuku.

It was the gentle movement of our ship, smells and sounds of the sea, and the tremendous experiences such as this, stamped indelibly on my memory, that have helped to mould me into a blue-water sailor. Huarewa, Coppermine Island, is the easternmost in the group of islands known as Maro-Tiri, the Chickens in the Hen and Chickens group. the reef is approximately 32 metres off Coppermine point of this island.

It was in my early years too that the abiding love my parents had for plants, their enthusiasm for botany and for the general observation of Nature all around us that inspired me and headed my steps in the right direction. I became aware then that with a built-in interest such as this, a wonderful environment becomes Paradise indeed.

This far had I progressed when my lifetime friendship with the two Lucys began. Over the next fifty years we were to share many happy experiences and fine adventures. Not least of which were our expeditions to Taranga in 1934 and to the Poor Knights in 1937.

On both occasions I arranged the transport. To Taranga on Dalmatian born fisherman Jack Glucina's cutter Ariel and to the Poor Knights on brother Hereward's yacht Arethusa. On both occasions my father Arthur Ranulph Pickmere lent me his three metre kauri dinghy. I was very proud of his trust in me and very much aware of my responsibilities.

Dorothy Ellin, now Greechan, came with us to Taranga while my mother Edith, Mrs A.R. Pickmere, accompanied us to the Poor Knights.

We had eight days on these delectable Islands (Poor Knights) camping above the landing on Aorangi. Our tents were concealed by the first shrubby vegetation where the dominant plant was Poor Knights ngaio, Myoporum laetum var. decumbens. Of this splendid plant Mr W.A. Given, M.Sc. Science Master at Whangarei High School said, "I love this plant! I like the way it leans its elbow on the ground!" An apt description of its interesting pattern of growth. Large shining leaves are very distinctive.

There are few safe landings on the Poor Knights and during our dinghy adventures we often landed the two Lucys, the other two remaining afloat and botanising with binoculars. An exception was Rock Lily Inlet on Tawhiti Rahi. There we found a large flattish rock onto which we hauled out the dinghy. Prudently two remained nearby while the two Lucys sped off, in different directions, in order to accomplish as much as they could in the limited time available.

In a secluded little dell in this inlet we all enjoyed the luxuriant growth of rengarenga, Arthropodium cirrhatum, of oru, Colensoa physaloides, and many other treasures.

At Tawhiti Rahi it was fascinating to look upwards at vertical cliffs

towering 100 metres and more above us, and with hands fending off the dinghy, to look downwards through crystal clear water as our line plumbed 100 metres. I wanted to swim down that seaweed rich wall, but bowed to the more cautious judgment of my companions. Nowadays scuba divers explore deep underwater caverns and would see no hint of danger in a vertical seaweed-covered wall, especially when, as in our day, depth was limited by the breath capacity of the diver, one propelled moreover by feet alone, without the extra drive afforded by flippers.

Happily there is now a marine reserve at the Poor knights where the silent world beneath the surface of the sea affords a rich field of great beauty and enchantment. Situated as they are 25 Km from the mainland, the Poor Knights are surrounded by consistently very deep water. There are few anchorages. There is no discoloration by sand or mud, nor the outflow of a river to sully it. Consequently the water is crystal clear and of a remarkable blue, so that one has the impression that a handful of it scooped up would repeat the wonderful colour. It is thought that a warm current affects the marine life, making it sub-tropical to near tropical in its range and abundance. The divers who explore it treat it with the love and the deep respect that is its due.

During the few hours that we had spent on Tawhiti Rahi a very fresh westerly had sprung up. Sheltered to a degree by the islands, the sea remained flat, but a really strong head wind made our return to Aorangi rather more difficult than we would have wished. At times our progress was almost imperceptible. When it was her turn to row I was very grateful for Lucy M.C.'s strong steady strokes. We were the two rowers, and during our necessary changeover from time to time used a simple safe technique taught me by my father. During the whole of this adventure I was quite confident that I had at no time exceeded his dictum, "Remember, a good sailor never takes unnecessary risks!"

On our return to our landing on Aorangi we always rowed, I at the oars, stern first into a narrow gut remarkable for the splendid zonation on its sides, of barnacles, seaweeds, sea-anemones, &c and a delight to us all. Here we were met by handsome, very militant red crabs, Leptograpsus variegatus, whose demeanour suggested to us that their resolution was, at all costs, to repel us, the invaders! Their range is along the edge of the sea, following the waves up and down.

As we backed into this gut, watching and using the big swells, we had a smart routine for landing and drawing our dinghy out after us. During our 1934 expedition to Taranga I had learned that in boating matters Lucy M.C. is a "natural", and during this manoeuvre her skills proved to be invaluable. There was splendid rapport within this crew and few orders were necessary. "Jump" was acted upon accurately and unerringly, and at no time was there any "bark" off our dinghy or off any one of our four persons. Lucy M.C. was always first out and held the dinghy in the swells while we landed, I being the last. We then lifted our boat out of the water and carried her up well beyond the reach of any rogue wave that might sweep in. I was brought up to love the sea, to respect it, and never to take it for granted.

In October 1936, just four months before our expedition in February 1937, Captain G.F. Yerex and his men of Internal Affairs Dept. had exterminated the ravaging pigs on Aorangi. Even after so short an elapse of time since their demise, we could discern that the damage wrought by these beasts was beginning to heal. We searched for the

giant land snail, Placostylis hongii, finding nothing but broken shells. Just 20 years later I was delighted to find that they were once again abundant. As we explored we found many desiccated corpses of pigs, descendants of those that had been given to the Ngatiwai Maoris. We found human skulls too. These were invariably cleft, bearing grim witness to the terrible massacre that had taken place in the early 1800s. The cause of this massacre was a refusal to trade these pigs. Only an old man and a five year old boy, hiding high up in a cave on the cliffs, had survived to tell the terrible tale.

At times we swam in the huge, beautiful rock pools; and, off the rocks we could always catch fish for the pot. We had chosen a time of year of exceptionally high, correspondingly low spring tides; thus we enjoyed optimum conditions for the study of marine algae, and the whole wonderful intertidal zone. Lucy B.M. had a particular interest in the study of barnacles.

To the botanist, amateur or professional, one of the greatest joys must be to see a rare plant growing in its natural environment. As one who grew up with the exciting finding by Mr Wm.M. Fraser of Whangarei, of a strange "new" plant on the Poor Knights; of its naming by Dr W.R.B. Oliver as Xeronema callistemon; of its first mainland flowering in my parents garden, I was ecstatic to see this noble plant growing here in profusion. We were all astonished by the huge size of its tussocks, and a little surprised too by the diversity of its locations. We had tended to think of it as perching, often precariously, on cliffs over the sea or on rocks facing the sea. Here on Aorangi it also grows in the forest, sometimes on the ground, but more often perching in a convenient niche, as on a pohutukawa. The Lucys established another station for it at the Knights, on Tawhati Rahi. Here they found it high up on the flattish plateau, growing densely on poor, arid, rubbly volcanic soils. These plants are tall, dark green and healthy. They often cover the soil for several decametres (square chains). Its requirements are adequate light and perfect drainage, and an absence of debris, e.g. blown leaves lodged in the fans. In its perching cliff position it can grow to great bulk and become unwieldy. Then, breaking off it topples into the sea, where it floats buoyantly.

One such tussock was rescued after having drifted as far as Lady Alice Island in the Chickens group, nearly 40 Km distant. It survived, later to grow in gardens. (the two Lucys 1933)

An interesting note on Poor knights lily, follows: In 1924 Mr Wm. Fraser, who had found it, brought a fan of this "new" plant to my mother. The following year my brother Hereward and his surveying/yachting colleague Alex Clark-Walker, there with an entomology, chartmaking party, brought her another fan. These two original plants grew mightily and having ruptured their original containeres were moved on into two large concrete urns. It wasn't very long before they filled these urns, and being slightly constricted, began to flower regularly. We noted a marked difference in the flowers, particularly at bud stage. I sent notes and material to Lucy B. Moore at Botany Div., and in 1943 she described Xeronema callistmon var. bracteosa. In Flora II she wrote, "both varieties grow at the Poor Knights. In X. callistemon the whole inflorescence becomes red while still very young, whereas in X. callistemon var. bracteosa red colour only shows when the flower buds begin to emerge from the longer green bracts."

From general observations I would add that the var. bracteosa is

perceptibly larger. To date I have measured only the length of the racemes. Compared to X. callistemon with 15-35 cm, I have found that of X. callistemon var. bracteosa to be 30-40 cm.

We spent much of our time on Aorangi enjoying, collecting and making notes in the wonderful, often luxuriant vegetation, finally to our surprise finding kauri, Agathis australis and some of its associates - tawa, tawhero, &c. In one of the photographs I find myself standing proudly beside a kauri ricker not decimeter taller than myself.

We found the beautiful fern Todea barbara there too. The Lucys were to repeat both these finds on Tawhiti Rahi.

In bare, hungry, exposed and rubbly areas the vegetation was stunted, often yellowed; but in sheltered spots it was luxuriant. Friable volcanic soil, nourishment by bird populations - perhaps also by populations of insects, tuatara and lizards - contribute to the fertility of the soil, all helping, with leaves to build up a rich humus. A.T. Whitaker - pers comm - says that both geckos and skinks are very numerous. Tuatara too, our "little dragons" are plentiful. We often saw them rustling their way with speed through the vegetation with rapid flailing movement of their legs. We came upon them in the open too, motionless and unblinking as they basked in the sun.

It is possible too that the salt-laden winds that sweep over the islands, and the soft mists that so often envelop them, bear with them valuable trace elements. Xeronema in particular would appreciate this, which could be a contributing factor to the well-being and great vigour of this interesting species there, particularly on the Tawhiti Rahi plateau.

The large leaved forms of several well-known plants was a source of wonder to us. The very handsome kawakawa Macropiper excelsum var. majus with green stems and thick textured shining leaves of huge dimensions was specially noteworthy; e.g. the average measurement of kawakawa of 5-10 cm x 6-12 cm became 13.75 x 13.75 cm, while it was not unusual to find 23 x 23 cm examples. The dimensions of tawa, Beilschmiedia tawa as we knew it then, exceeded even those of the large leaved form we had seen on Taranga and from stations from Bay of Islands down to Coromandel. On Taranga we had measured examples that were 5 x 2 cm in sun, 15 x 6 cm in shade. The huge leaves on the Poor Knights can measure 18 x 10 cm. The large leaved form of tawa is now known as Beilschmiedia tawaroa Wright.

Towards the end of our stay the mosquitoes found us. They are a large island breed that develops during its larval stage in pools of brackish water. They didn't bother to sing, but instead infiltrated our sleeping bags, where they wrought havoc. Having no insect repellants we used a Maori equivalent. We rubbed the juice of ngaio on our skins and before retiring burnt the leaves of it in our tent. We used no lights to attract them in. These measures were effective but not lasting. By daybreak the mossies were with us again!

At last came time for us to leave. We were ready when we heard Hereward's conch shell sounding as he approached from the south. The conch was a souvenir from the years he had spent in Fiji, surveying and chartmaking for the British Government. In this work he had used his beautiful yacht Arethusa - his transport, accomodation, and his office. In the Yasawa group he charted over three hundred islands.

Having loaded all our gear on board we now spent the greater part of the day sailing round the islands, making futher valuable obsevatons,

such as noting bull kelp, Durvillea antarctica growing in stations other, and more typical than that recorded in 1933. We landed once or twice, but mostly were close in and able to use binoculars to good effect.

We sailed through the magnificent archway on Archway Island and into Rikoriko, the beautiful cave on Aorangi. In Hereward's opinion these two experiences were mandatory for anyone visiting the Poor knights. In both these areas we saw korokoropounamu, bluefish, Girella cyanea and marvelled at the wonderful bright blue colour. This is typical habitat, for it enjoys the shelter of rocky caves.

I remembered then, as I do now, writing on this Christmas Day 1987 - a wonderful Christmas Day in 1925, when from my father's launch Winsome we landed the party of entomologists and chartmakers on Aorangi. It was a bumper year for the flowering of pohutukawa; the beautiful islands, aflame with the crimson blooms made an unforgettable picture, enhanced by blue skies and deep blue seas, and by the great creamy plumes of toe-toe-kakaho, Cortaderia splendens and the smaller tussocks and plumes of Chionochloa bromoides. Everywhere on the cliffs the very large tussocks of Xeronema contributed their own very distinctive presence, and an occasional late flower. We were all interested in a band of Cook's scurvy grass Lepidium oleraceum on the cliffs, and remarked that if it grew as abundantly as this round the coasts in Cook's time, it was no wonder that his men were able to gather it by the boatload, to be used as a valuable antiscorbutic.

On that Christmas day in 1925 the sea seemed to be full of fish. We fished for a little while on the hapuku reef, but found that we could not get our lines down for the two large snapper that invariably took both baits when the lines were only half way down. We even caught snapper on our trolling spinners! At this rate we could not fish for very long. Without refrigeration or ice we could not catch more than we could use within a short time. The men filleted some of this snapper, salted it with some of the large plate sized sheets of sea salt found on the rocks, and then hung it to sun dry.

With schooling fish everywhere there were hundreds and hundreds of sea birds everywhere - terns, gulls,, diving petrels, flesh footed shearwater. In particular, among all the many beautiful and fascinating birds were Bullers shearwater, Puffinus bulleri in great numbers. This is a very distinctive, very beautiful shearwater. Its only known breeding place is the Poor Knights. (Falla 1924)

In those days it was possible to sail for hours along this northern coastline, surrounded for most of the time by great rafts of sea birds, several different species.

I was discussing this recently with a 90 year old friend, an old sea-dog whose working life was spent on the sea around our coast. "Katie," he said firmly, "we were born at the right time!" Certainly, remembering some of these wonderful sights, I would have to agree.

The Poor knights are of volcanic origin, "well compacted, bedded rhyolite breccia, weathering to a yellow tone only where prevailing cover of grey and green lichen is broken, or where a bare band occurs here and there in the upper littoral. The island are tall - 180 m to 200 metres, and are plateau-like on top. They almost invariably meet the sea in vertical cliffs which frequently run, not only the whole height of the island, but also some 100 metres down into the water.

They are very majestic in appearance, with soft pale colours, ever

changing in the changing light, of pale greys, grey-green and white."

Perhaps when he named them, Captain James Cook saw, not only the knights riding on horseback with the poor knights of legend running alongside holding stirrups, but also the castles from which they had all emerged!

As well as the structure of these islands which gives them their very distinguished appearance, "one of the most striking features of their coastline is the many ranked and beautifully symmetrical zonation of intertidal communities. Bands of sessile shellfish and seaweeds run like white, red and brown ribbons around the shores, a striking expression of certain major factors operating throughout the whole littoral zone."

"They are islands of great biological interest". The seas around them are now an important marine reserve. "It is of paramount importance that the islands are guarded in their present category as a sanctuary sacrosanct".

My grateful thanks are extended to Dr Lucy Cranwell Smith, who, having read my original manuscript, offered constructive criticism and suggestions. She also gave of her very valuable time to copy for me three papers prepared by her and her colleague Dr Lucy B. Moore for Auckland Institute and Museum and the Royal Society.

As she knew that they would do, these papers have greatly enhanced my recollection.

As indicated by inverted commas I have used direct quotations from the Poor Knights paper.

Particularly appropriate are the descriptions of the general appearance of these islands, of the vertical cliffs, the lovely pale colours, and the wonderful intertidal zone. As I write that I can almost smell it, and find myself singing the Scottish song "The Road to the Isles" - "If you're thinkin' in your inner heart a braggart's in my step, you've never smelt the tangle (seaweeds) o' the isles".

These descriptions, scientifically accurate are as well poetically descriptive, and are their own finest tribute to the two Drs Lucy!

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THE NAMING OF THE HEN AND CHICKENS AND THE POOR KNIGHTS

with a note on the Hon. Kitty Vane and her illustrious
father Capt. Gilbert Mair, N.Z. Cross.

Katie Reynolds

As Lieutenant, later Captain, James Cook sailed round the coast of New Zealand, he named headlands, bays, islands and mountains, carefully recording details in his log. He had received his commission on 25 May 1768, taking command of barque Endeavour on the 28th at Deptford. After fitting, provisioning &c., and a delay because of adverse winds, Endeavour finally sailed from Plymouth Sound on 26 August.