Report of the proceedings of the Queensland Government schooner *Spitfire* in search of the mouth of the River Burdekin, on the north-eastern coast of Australia: and of the exploration of a portion of that coast extending from Gloucester Island to Halifax Bay

This direct copy of the Expedition report from the National Library of Australia's digital resources (a.k.a. Trove, here) that appeared in **Texts** on my **About The North** website in March 2023 is largely unmodified, except for:

- the presence of footnotes rather than endnotes;
- page breaks inserted where they seem appropriate;
- text formatting consistent with other content in my **Texts** and **Sources and Readings**.

I have broken the content into separate sentences to make it easier to skim through in search of detail for use elsewhere.

Illustrations:

Cover: View of Hayman Island (Joyce Etta White (1913- 2009); Slide: colour, 1941; Out of copyright; State Library of Queensland)

Version History

1.0 April 2023. Basic text and references.

Hyperlinks to **About The North** pages for: George Elphinstone Dalrymple; Phillip Parker King

Hyperlinks to **Australian Dictionary of Biography**, **Wikipedia** and similar sources for Henry Daniel Sinclair; Sir George Ferguson Bowen; John Lort Stokes; John Clements Wickham; Ludwig Leichhardt; William Branwhite Clarke

REPORT

OF THE

PROCEEDINGS

OF THE

QUEENSLAND GOVERNMENT SCHOONER

"SPITFIRE,"

IN SEARCH OF THE MOUTH

OF THE

River Burdekin

ON THE NORTH-EASTERN COAST OF AUSTRALIA

AND OF THE

Exploration of a Portion of that Coast,

EXTENDING FROM

GLOUCESTER ISLAND

TO

HALIFAX BAY.

Published by authority

BRISBANE, QUEENSLAND:

From T. P. Pugh's Printing Office, George Street

1860

Government Notification

Colonial Secretary's Office,
Brisbane, Queensland,
November 20th, 1860.

HIS Excellency the Governor, with the advice of the Executive Council, has directed the publication of the Reports of the Government Expedition to the north-eastern coasts of Queensland, for the information of the public generally, and especially of persons intending to settle in the new district of Kennedy.

It is proposed to open that district to occupation on January Ist, 1861. The local Commissioner of Crown Lands, (Mr. G. E. Dalrymple) will proceed from Rockhampton about February Ist, 1861, with a strong party of the Queensland Native Police, for the protection of the settlers.

It is expected that, in about three weeks after leaving Rockhampton, this Expedition will reach Port Denison.

A vessel will be despatched to convey thither by sea the necessary stores, &c.

Persons desirous of availing themselves of his Escort should apply forthwith to the Commissioner of Crown Lands.

Port Denison will be proclaimed as a Port of Entry and Clearance on or about March Ist, 1861.

The original discoverers of Port Denison, viz., Mr. James Gordon and Mr. H. D. Sinclair, have been appointed, the former to be Officer of Customs and Clerk of Petty Sessions, and the latter to be Acting Harbour-Master and Government Pilot at the said Port.

It is the intention of the Government to survey and bring forward for sale at an early period suitable town allotments on the shores of Port Denison.

By His Excellency's Command,

R G. W. HERBERT.

ADVERTISEMENT.

Copies of the REPORTS of the recent GOVERNMENT EXPEDITION to the north-eastern Coast of the Colony of QUEENSLAND, and of the Charts prepared by Mr. J. W. Smith, R.N., commanding the Expedition, may be procured at –

Brisbane , Queensland – at the Government Printing Office.

Sydney, New South Wales – of Mr. George Robertson, Bookseller, George-street.

Melbourne, Victoria – of Mr. George Robertson, Bookseller, Elizabeth-street.

REPORT OF THE PROCEEDINGS OF THE BURDEKIN EXPEDITION

Mr. J. W. Smith, R.N., Commanding the Expedition, to the Honorable the Colonial Secretary.

Brisbane, November 12, 1860.

I have the honor to acquaint you, for the information of Governor Sir G. Ferguson Bowen, G.C.M.G., that, in pursuance of instructions from His Excellency (dated August 11, 1860), to take command of the schooner *Spitfire*, and to prosecute the necessary explorations on the N.E. coast of this Colony, with the object of ascertaining the outlet of the River Burdekin, I immediately repaired on hoard that vessel, and made arrangements for the general equipment of arms, ammunition, provisions, and other stores; and that I was enabled, by the 22nd of the same month, to take my departure from Brisbane.

Our party consisted (besides myself in command), of Mr. G. E. Dalrymple (Commissioner of Crown Lands), Mr. R. P. Stone (Surveyor), Mr. Bousfield (the Master of the *Spitfire*), and Mr. Fitzallan (Botanical Collector), seven seamen, and two aborigines; making 14 in all.

In consequence of the time necessary for the adjustment of my chronometers, &c., it was not until the 26th August that we were clear of Moreton Bay.

With a fresh S.E. wind, shaping a northerly course, we arrived at Rockhampton, on Thursday, the 30th of August, at which place I was instructed to attach to the expedition the Queensland Government ketch *Satellite*.

On examination of this vessel, I was immediately convinced of her inutility as a sea-going craft; so we left immediately, while the weather and season were so favourable for our work.

[page 2] On Tuesday, the 4th September, we cleared the entrance the Fitz Roy River, and shaping a northern course, still with a fresh S. E. wind, we arrived at the Northumberland group of islands.

At noon, of the 5th, the central peak of No. 1, Percy Island bore N. W. 8 miles distant.

This being an observatory spot of H.M.S. *Herald*, I was desirous of trying the meridian distance to satisfy myself that the chronometers which were supplied to me from that ship were working properly.

The observations made on the succeeding day were so highly satisfactory that we weighed at 2.30 p.m. (September 6th), passing between No. 2 Percy and Pine Islands.

These islands, which I had previously visited in July, 1859 (whilst attached to H.M.S. *Herald*), present a most pleasing appearance; the summits, which are elevated between 600 and 800 feet, are clothed with verdure, consisting of acacias, gum trees, black wattle, pandanus, cypress, laurels, several species of the genus Rosaciae, and numerous copses of a very beautiful and useful pine.

On the Pine Islands [1] of Captain King, westward of No. 2 Percy, the whole space is one large forest of straight pines, of excellent dimensions and readily obtainable.

Moreover there is a good harbour where a ship of any dimensions could remain at anchor m very smooth water, close to where spars are procurable.

This group of islands is occasionally visited by natives, but they are not permanent inhabitants. During our stay in the *Herald* of one month in 1859, we saw none, but observed several indications of their having been there.

As the *Spitfire* passed in, the smoke of fires was seen on No. 2 Island; but I did not deem it prudent to allow a moment s delay with so fair a wind blowing.

Here water is easily obtainable for shipping purposes, and fish are to be hauled in with the seme in very large quantities.

September 7th, at noon, M Island [2] Cumberland group, bore W. by N.½N.

„	„	H	„	S.S.E.
"	"	and No. 14	„	N.N.W.

when we were in latitude 20° 52' S. and Longitude 149° 23' E.

At 2:30 p.m., whilst passing the island marked H, we observed a dense smoke and heard an explosion, such as would be caused by gunpowder; which induced me to examine the place, in the event of any distressed shipwrecked mariners being there.

Having anchored, and observing natives on the beach, our party immediately landed, using such precautionary measures as are absolutely necessary amongst a savage and hostile people.

After a slight manoeuvring, we succeeded in obtaining an interview with these people, who numbered in the whole about 14; but we failed to obtain any information which could explain the cause of the explosion which we heard.

We saw 6 canoes, each about 8 feet long and 3 feet 6 inches broad, made of bark, and sewn together with a species of cane; with fishing apparatus in each.

---

1 Pine Islet and Pine Peak Island.

2 Keswick Island.

There is very excellent anchorage under these islands; and water is procurable with some difficulty.

Geological and a few botanical specimens were obtained during our stay; and at daylight on Saturday, 8th September, we weighed anchor, pursuing our course to the N.W., with a light, air from the S.E.

On night coming on, we hauled in under Shaw's Peak, in 12½ **[page3]** fathoms, with a muddy bottom.

This bay, which is formed by an amphitheatre of hills, has very deep water; and we had much trouble in finding a spot suitable as an anchorage for our little vessel.

Sunday, September 9th. — At daylight, with still light airs from the same quarter, we entered the *Whit-Sunday* Channel at about 8 a.m.

We narrowly escaped running on a small pinnacle rock, with its apex awash, and so much resembling a turtle that even the Aborigines on board were at first deceived, until we were nearly on the top of it.

Such a catastrophe, I am afraid, would have been fatal to the expedition, as it happened to be high water at the time.

The position of this rock, which I named *Spitfire* rock, I beg to append. (Appendix A.)

At 2 p.m. finding the wind falling light, and the channel from our morning's experience being probably dangerous, I determined to enter Port Molle, where we came to in 7½ fathoms on its southern side, abreast of a beach on the northern face of Boomerang Island.

The remains of a very old wreck lie in the central part of this beach; and a stack of coals had been with much care piled up above high water mark, grass having grown over it.

Here, as at every place which we visited, geological and botanical specimens were obtained; among the latter, a most beautiful flower of a scarlet color, completely covering the few trees which we saw of it.

Upon close examination it was observed that, at this season, there were no leaves on the tree, which has a whitish bark, and is about 20 feet in height.

I regret to find that unfortunately we failed in preserving our specimens of this magnificent flower.

Port Molle is in itself a very excellent harbour, but being shut in by a semicircle of high mountains without any apparent pass into the interior, (all of which hills are densely covered with scrub and thick forest) it would not appear at all available for any useful purposes, as an outlet to the country even in its own immediate vicinity.

Seeing no advantage in remaining here, we weighed on Monday morning the 10th September, with a very light wind.

When we had proceeded a distance of about 10 miles, it fell calm; and our natives perceived a canoe (of the same description and dimension as those seen at M. island), with two men in it.

By our gesticulations they were induced to come alongside, and one of them afterwards to come on board our vessel.

The fright and surprise of this individual were very apparent; his friend, whose services were required in perpetual bailing, could not be persuaded to venture on board.

Our interview, though short, was very interesting, and we were inclined to think that in this region the natives are not so hostilely disposed as was rumored.

We bartered for some spears, and spear heads of a harpoon barb form, about 6 inches in length and also for some roasted turtle.

A breeze springing up, the two aborigines left us to cross over to Hook Island, a distance of 10 miles, with, no doubt, a wonderful tale for their countrymen.

[page 4] At about 8 p.m. we anchored under Gloucester Island, where there were numerous fires burning about the hills.

This island, which has a small craft channel between it and the main land, is the first of those remarkable projecting high headlands which lie between this point and Magnetical Island.

On Tuesday, 11th September, we weighed at daylight, steering across Edgecumbe Bay, passing to the southward of Middle Island, and easily found the entrance to Port Denison, discovered in 1859 by Mr. Sinclair; a tracing of whose chart had kindly been supplied to me by the Surveyor-General of Queensland.

We hove to, whilst I went before in the boat to satisfy myself of the safety of the entrance. Nothing could be more gratifying than the appearance of this splendid little port; so I returned to the vessel, and from the masthead piloted her in.

After anchoring in a position which afforded shelter against all winds, our parties landed on the island facing the centre of this port; which island I named after my assistant *Stone Island*.

Messrs, Dalrymple and Stone, with a small party, ascended the western heights of Mount Gordon, whilst I engaged myself in making such astronomical observations as were requisite, and prepared plans for trigonometrical operations, in the event of a head wind setting in.

This, however, not being the case, and our main object being the Burdekin, on Wednesday, September 12th, at our usual time of commencing operations (viz. daylight), the wind blowing from W.S.W., we started and rounded Cape Edgecumbe (taking care to avoid two small rocks elevated about 4 feet) at a distance of 1½ miles from the Cape.

This portion of the coast had evidently never been under any examination, as the before-mentioned rocks are not inserted in the charts.

A careful examination of the coast for the opening of the Burdekin occupied our morning without any success (excepting a running fresh water river which Mr. Dalrymple had discovered on the previous day); so we pushed across Abbott's Bay to Cape Upstart, where we arrived at 3 p.m.

Here we saw no indications of natives being present, though the tracks on the sand were numerous and recent.

On Thursday, 13th September, we were making astronomical observations, whilst Mr. Dalrymple was away in the whale-boat examining the creeks on the south and western part of Cape Upstart.

Friday, 14th September. — To fully satisfy ourselves of these outlets being nothing but salt-water creeks, our party, making an early start, ascended the southern heights (the Station Hill of Captain Stokes), where we were engaged during the day, making sketches, &c.

The view from this elevated position of 1,900 feet above the sea, gave us a clear outline of a net-work of numerous salt-water creeks; none of which can be by any possibility the outlet of the Burdekin.

The low promontory of Cape Bowling-green, distant 33 miles, was just discernible; whilst the entrance of the Wickham River, at a distance ol 12 **[page 5]** miles, was observed to be breaking entirely across its mouth.

On the eastern side of the peninsula, is a deep gorge which runs in a N.W. and S.E. direction, nearly through the promontory, with high towering peaks densely covered with forest to the N. and N.E.

Native smokes were seen in the valley, but there was no attempt to offer any molestation to our well-armed party.

On our return from the heights (where we left a record of our visit), such trees as were most conspicuous were marked with the broad arrow, and a communication was left for the *Satellite*, in the event of her following us.

The anchorage is nothing but an open roadstead; and, except for procuring wood and water, is perfectly useless; as no communication was in any direction apparent across the numerous before-mentioned creeks, and impassable swamps.

Saturday, 15th September. — Having been hove to during part of the night, we bore up at daylight, with Cape Cleveland bearing W.½ S. about 9 miles distant, and at 9:30 a.m. came to in its roadstead.

Fixing on a convenient rocky promontory for making observations for latitude and longitude, we landed, and perceiving a small party of natives, I was in hopes that such friendly intercourse would take place as would enable us to gather information respecting the mouth of the Burdekin.

Such hopes, however, were soon blighted; for upon an increase to their party, they suddenly made an attack, which was instantly repulsed; when they retreated with great rapidity.

Observing a canoe passing round one of the points into a Lagoon, we gave chase; and after it was deserted, we took possession, and broke it to pieces so as to cut off the communication, and prevent any immediate increase to the force of the aborigines, already numerous and violently hostile.

Sunday, 16th September. — During this day we observed considerable numbers of natives about the beaches and hills, shrieking and yelling most diabolically: finally towards the evening (as we did not land on this day), they retired towards the south.

The time of high water at full and change here is 7'30; the rise from 10 to 12 feet.

The water shoals very rapidly, and there is not more than 4 or 5 feet between the extreme points.

The *Spitfire* anchored in 11 feet low water, with the central beach S.E. ¾ mile.

There were detached rocks inside where we were lying, which broke at low water.

The tides run parallel to the coast off Cape Cleveland, the ebb going to the north, and the flood to the south, at the rate of 1⁺ 5' miles per hour.

I have no doubt, in consequence of this set of tide, that Cape Cleveland, vas also Cape Upstart, are both islands.

[page 6] At daylight on Monday, 17th, we weighed with the wind at N.W., and commenced working towards Magnetical Island; and at 5 p.m. came to anchor on the north side of that island, with Bay Rock hearing W. by N. 1½ miles.

Tuesday, 18th September. — Having taken a good look to the north, we worked to the W.S.W., not going inside of 3 fathoms, with the wind first at S.S.W. and afterwards at S.

We saw two natives in a canoe on Magnetical Island, and several signal smokes about the coast.

Pursuing the traverses, we were enabled to see every part from Magnetical island to 'the N.W., a distance of 23 miles; where a high ridge ranging up from the S.S.E. abruptly meets the coast, without any break through it, and therefore through which the Burdekin cannot pass.

This range is elevated upwards of 3,000 feet.

A few small creeks run into the Bay, across the mouths of which the natives passed knee deep.

These creeks are probably the drainings of the before-mentioned range, and of that lying westward, and in connection with Mount Elliot.

After sunset we succeeded in getting near our old anchorage, ready for the next morning.

Wednesday, 19th September. — We landed at early dawn, and ascended the heights of the south end of Halifax Bay, elevated 1050 feet.

These hills, as also all the neighboring islets, are of a reddish granite formation, though some pieces of quartz were occasionally found in the native canoes.

There were numerous rock wallabies of two species, a dark chocolate and a grey.

Several passed within range of our rifles, but we did not succeed in hitting any.

On arriving at the summit, we saw several native camps on the plains to the Eastward; so we hurried through our observations with as much speed as was consistent; not however before they had succeeded in cutting off our retreat.

I had great anxiety for the safety of the boats; and as there were three parties to protect, viz., that on board the vessel, that in the boats, and the landing party, we felt that our force was very inadequate to meet the constant harassing attacks of these people.

On arriving at the base of the hill, a gang had assembled dancing their war dance (corrobbory); and poising their spears, they commenced an immediate attack.

We succeeded, however, in making our way to the boats, and in bringing one spear with us, which fell tolerably close to our little party.

By the time we had embarked (having had to wade through mud and sand about 600 yards), there were upwards of 40 natives assembled, all very large stout able-bodied men.

The women and children had, prior to this, decamped.

The spear here mentioned is somewhat different from what we had before seen, being fitted at the hand end for a woomera , or throwing stick.

[page 7] On our return to the *Spitfire*, I was informed that about half-past 6 a.m., two canoes numbering seven or eight men, had attempted to board the vessel, but that they were successfully driven off.

Our examination was now perfect from the before-mentioned high Range to Magnetical Island; and my object was once more to examine the inner western corner of the Cleveland promontory.

On Thursday, 20th, despatching Mr. Stone with the botanical collector in one boat, and Mr. Dalrymple and myself going in the other, to our delight we each discovered large entrances tending in the direction where Mr. Dalrymple a year previously left the Burdekin a broad running stream.

These two entrances finally unite, passing in a direction to the S.E. towards Mount Elliot, and then join a third entrance, (which we afterwards discovered to the E. of Cape Cleveland.)

That which Mr. Dalrymple and myself went up I called, on account of having afterwards seen a large crocodile on its banks, "Crocodile Creek." [3]

We did not deem it prudent to ascend more than about 10 miles, on account of the natives, and the unsafe position in which the *Spitfire* was lying; at which point we had a depth of water of 18 feet, and an average breadth of 180 feet, and the tide running from the S.E. It had changed during a short stopping we made.

We also discovered a rivulet to the W. of Mount Abbott, [4] emptying itself over a very shallow sandy bar into Cleveland Bay.

The banks of these streams, which are elevated about 4 feet, are interspersed with open forest and mangrove, with occasional patches of grass; there were numerous tracks indicating by their freshness the close proximity of native tribes.

Friday, 21st September. — We endeavoured to ascend the southern heights of Cape Cleveland, but owing to the scrub and immense granite boulders, I deemed it advisable to make a midway station on a rocky shoulder of one of these hills, where we had a very excellent view of our previous day's work, also of some running water farther to the S.E.

On repairing on board, we got under weigh, whilst Mr. Dalrymple and myself went to a hillock at the extremity of Cape Cleveland.

Several turtle (*Chelonia Marmoreta*) were basking close under the cliffs at the edge of the surf, and rock wallabies were hopping about the caverns.

---

[3] Later known as Alligator Creek?

[4] I suspect this should read Mount Elliott. The 'rivulet to the west' could possibly be Ross River. (I.H.)

At sunset, we anchored in the western part of Bowling-green Bay in 7 fathoms, with the extremity of Cape Cleveland bearing N.W. by W., distant 9 miles.

Saturday, 22nd. — As early as possible we weighed and stood further into the Bay into 3 fathoms, where, upon anchoring the vessel, we left in the boats, and proceeded towards an inviting looking broad entrance, into which we went with safety, crossing a bar of 7 feet.

These bars are extremely dangerous, and, excepting in very fine weather, could not be crossed even by boats, as they are exposed to the whole **[page 8]** ocean drift from the Barrier Beef during the prevalent N.E., E., and S.E. winds.

Sharks and crocodiles are also extremely numerous; and hostile natives are ready to receive those who succeed in landing.

These causes, coupled with the ever uncertain exposed anchorage of our little vessel, rendered not only great caution necessary, but also made it imperative on my part to reassemble the crew on board, if it were by any means possible, as soon after sundown as could be.

Having crossed the bar, a deeper channel immediately presented itself of 20 feet, which depth gradually decreased to 16 and 10 feet.

We carried a strong flood tide with us for 12 miles, when our progress was intercepted by sand banks; and the navigation became impracticable even for boats.

The flood stream at this point was running with great rapidity, and the water was nearly fresh.

A short distance above where we were, there were copses of the large Eucalypti; and the direction of the stream was to the S.E.

Flood marks, also, on the banks of this delta, elevated about 16 feet, were indicative of the inundation of this part of the country.

Besides large crocodiles, we saw innumerable quantities of young ones, about 18 inches in length, in all the small streams.

The main trend of this branch was to the S.S.E., passing eastward of Mount Elliot.

The banks of the river were beautifully diversified with grassy plains and open forest, but generally belted with mangrove.

At dark we returned to the vessel; the clouds were hanging heavily over Mount Elliot and the adjacent mountains, and the weather looked very threatening; the wind however being off the land we remained at anchor.

Sunday 23rd. — After divine service, we got under weigh, working to windward, examining the very low coast of Bowling-green Bay, where many small creeks opened themselves into this immense delta.

I have no doubt they are all outlets of the great Burdekin River.

Towards evening the wind freshened considerably, but the lee was sufficient to encourage anchoring, which we did under *Bowling-green Spit* in 14 feet water, about two miles from the shore.

Monday the 24th commenced with heavy tropical rain, but, perceiving a good entrance, we, nevertheless, pushed off to try the practicability of the Bar.

It proved, however, as I had anticipated, for, after crossing a long shoal water flat, we were finally obliged to drag the boats over, when the water immediately deepened to 10 and 12 feet, having deep holes of 24 feet.

Of these openings, five in number, out of a large bay of two miles in breadth, which is entirely barred across, two only are available for boat work, which after going to the S.W. united in one main stream, and then continued running to the S.S.W. 18 miles, making circuitous bends; when the stream became very narrow, so much so that the oars touched the mangroves on each side.

It being high water, the lead indicated that at low water the boats would not float; which would have placed us in an extremely dangerous position, in the **[page 9]** event of an attack from the natives.

So perceiving the inutility of going any farther, we reluctantly returned a couple of miles and camped for the night.

The native tracks were numerous, and evidently fresh, and having experienced on several occasions hostility from these tribes, we were consequently extremely vigilant during the night.

Tuesday 25th. The banks of these estuaries are somewhat lower than the other parts of the delta of the Burdekin, being elevated not more than 2 or 3 feet; and flood marks were observed on the mangroves at an altitude of about 20 feet; occasional patches of open grass and copses of Eucalypti were visible.

The whole, of the country embracing from the Wickham River to the inner part of Cleveland Bay, is occasionally covered with water, which could come from no other but the Burdekin river.

And the fact of all the entrances which were examined converging into one central point, which point is close to Dalrymple's furthest point in 1859, places it beyond the possibility

of a doubt that the entrances can be anything but mouths of that great River Burdekin, which has formed the above-mentioned delta, extending over a space of 60 miles.

To complete the examination, we scrutinized the remaining part of Bowling-green Bay, without any success; and finally, on 28th September, visited the heights at the entrance of the Wickham River, and there had a convincing proof of its diverging towards the central point aforesaid.

This river, which was ascended by Captain Wickham R.N. in 1839, is described as being blocked up with sand banks and unnavigable after ascending it for 14 miles: — a feature precisely similar to what we had ascertained in all the other entrances.

On our landing to ascend the heights, two natives were on the beach, but they decamped, on our approach, into the forest, lighting signal fires as they went.

Their canoe being on the beach, and these natives belonging to a tribe known to be hostile to white men (having not many months previously attacked the *Santa Barbara*), I made no scruple in taking their canoe and spear, and towing off a Dugong, which had evidently just been caught.

The coast S.E. of the Wickham River having, prior to this, been well examined, I felt that the examination of the six mouths of the Burdekin having been completed, the object on which we had been despatched was accomplished; and though I regret that for maritime purposes these channels are utterly useless, yet still our researches will give a knowledge of a coast entirely unknown before.

The shallowness of the water would alone deter any vessel from approaching such a treacherous coast.

Our next object was to make a re-examination and complete survey of Port Denison; where we arrived on the evening of the 29th September.

Though it was blowing half a gale of wind from E. by S., I had such confidence in the capabilities of the harbour that I made no scruple in running **[page 10]** in.

On passing between the Heads the change became immediately sensible, from the high tumbling sea outside to water as smooth as a lake.

We commenced our operations next day, and, by a division of labor, succeeded in completing our Survey on the 9th October.

Port Denison, which lies on the western side of Edgecumbe Bay, is about 3½ miles South of the Cape of that name, and W.S.W. 4 leagues from Gloucester Island.

Midway between Gloucester Island and the entrance of the Port district lies Middle Island, which has a reef extending upwards of a mile off its South point, for which a good look-out must be kept.

On approaching the western side of the Bay, the Northern Head, which is the most conspicuous, shows a granite peaked conical island, elevated about 80 feet, whilst the South Head, which is covered with good grass, slopes down into a mangrove gulley nearly in the centre ol the island.

When about a mile from the heads in from 6 to 7 fathoms, a ship should steer towards the Northern Plead; and three hills on the western side of the harbour will present themselves; the central of which is the lowest but the most remarkable, with a cone-like summit; it has table land on each side, extending to the North towards Mount Gordon, which is elevated 584 feet, and to the South, towards Mount Bramston, elevated 401 feet: both these hills are covered with forest and scrub.

This central and lowest hill should be steered for in a course of S.W.¼ S., which will pass through the deepest part of the channel, having not less than 18 feet at low water springs, and will leave the north head 2 cables distant, and the south 3½ cables, with a navigable channel of nearly half-a-mile: avoid with caution the south-head.

Pursue this course until the Observatory Sand Spit bears about S.S.E.

A vessel will be then at liberty to go either to the north, where water is to be obtained, or to the south, towards the sand spit, in an anchorage as smooth as that of Sydney harbour.

The dimensions of the port (which when mapped somewhat resembles the human ear) are about 3 miles in length with nearly two in breath, with a central depth of 27 feet.

The shores, excepting the sandy beaches, are belted with mangrove for a few yards; from which the country is generally open forest and grass, and is easily reached.

From under Mount Bramston a two foot coral flat extends, leaving a channel of nearly one mile, when it meets the numerous detached coral rocks which lie upwards of half-a-mile off the south point of Stone Island.

[page 11] This island, which has gently rising hills, elevated 87 feet, covered with grass, is a very picturesque little spot.

The landing is smooth on the beaches anywhere, but unfortunately we did not succeed in getting water.

The natives frequently visit the island, as there were late diggings in the central part, for a root which somewhat resembles a species of *Dioscoriae*.

The passes into the interior, which were recognised by Mr. Dalrymple, seemed to be numerous.

Our work being now completed, and our stock of salt meat getting short, coupled with the prospect of a probable S.E. wind, we started on our return.

We were, however, extremely fortunate; and after a passage ol nine days, arrived at Moreton Island on the 18th October, 1860.

By the straight route from Brisbane to Cape Gloucester is 585 miles, making a distance to Port Denison of nearly 600 miles.

From Cape Edgecumbe to Cape Upstart 32 „

From Cape Upstart to Cape Bowling-green, which is the central part of the delta of the Burdekin .. 35 „

Our coast work from Cape Bowling-green extending over a close examination up to latitude 19 S,, of 100 „

Making a total of 767 miles.

I beg also to enclose a catalogue list (classified by Mr. Hill, Director of the Botanical Gardens at Brisbane,) of the plants received by him from the expedition. (Appendix B.).

A catalogue will also be furnished ol the geological specimens collected, so soon as they shall have been classified.

In conclusion, I beg to observe that I invariably received the most able co-operation and assistance from Mr. Dalrymple, and in the survey operations, from Mr. Stone: whilst Mr. Bousfield looked well after the safety of the vessel during ray absence.

I have &c.,

JOSEPH W. SMITH, R.N.,

Commanding *Spitfire* on Burdekin Expedition.

Mr. George Elphinstone Dalrymple, Commissioner of Crown Lands in the Kennedy District, to the Honorable the Colonial Secretary.

Brisbane, 14th November, 1860.

Sir,

1. I have the honor to state, for the information of His Excellency the Governor, that agreeably to instructions received from you on the 8th of August ult., I embarked on hoard the Colonial schooner *Spitfire* under command of Mr. J. W. Smith, R.N., on the 22nd of August, and proceeded with him to the exploration of the estuaries of the river Burdekin — of Port Denison, and of the adjacent coasts.

2. On the 26th of August, Mr. Smith having completed his observations for the adjustment of the chronometers at Moreton Island, we sailed for Rockhampton, there to arrange for the co-operation in the expedition of the Colonial schooner *Satellite*.

3. After a prosperous voyage the *Spitfire* arrived at Rockhampton at 11 p.m. on the 30th of August.

4. On the 31st, Mr. Smith examined the *Satellite*, and found that she was so much out of repair that it would be not only unadvisable but dangerous to employ her on such an expedition.

5, Having filled up with water and completed stores, on the 1st of September the *Spitfire* stood down the Fitzroy river — light and variable winds very much impeding our progress.

6. On the morning of the 4th of September we were standing out of Keppel Bay to the N.E., with a light breeze from the S. by W.

[page 13] 7. Early on the 5th of September we bore up for *High Peak Island* which we passed on our starboard beam at 8.20 a.m., and sighted the Percy group right ahead, distant about 30 miles.

The former island is of pyramidal form, of about 800 feet abrupt elevation, — is surrounded by low cliffs of red colored rock, probably porphyritic, and is partially clothed with dwarf pines.

8. On the same afternoon we anchored in the harbour formed by Nos. 1,2, and 6 Percy Islands, and close under the first-named, off *Beale's Creek* watering place.

9. The Percy Islands appear to be formed of a coarse sandy conglomerate, which forms the cliffs and headlands of their coasts, and crops out on the crests of the hills.

10. Grassy hills rise to an elevation of about 800 feet, openly timbered with *Eucalypti*, *Casuarinae*, *Pandanus Palms*, &c.

The valleys and richer flats are densely wooded with fine Pines of the genus *Cookei* and small belts of scrub, in which are bottle trees, yellow wood, acacias, iron wood, and a variety and network of scrub vines and creepers.

11. These islands are well adapted for cattle pastures, while portions of considerable extent are suitable for cultivation.

The Botanical Collector attached to the Expedition, here obtained specimens of a new and very beautiful terrestrial orchid, *Vauda Ceruliensis*.

Mr. Hill, Director of the Botanical Gardens at Brisbane, first discovered this beautiful plant on No. 2 Percy in 1854; but the attack of the aborigines, which resulted in the murder of his companion, Mr. Strange, obliged him to abandon his specimens.

12. Mr. Smith completed observations at the former observatory spot of H.M.S. *Herald*, where we found a post bearing the inscriptions

> H.M.S. HERALD,
> CAPT. DENHAM, R.N.,
> JULY, 1859.

Having filled up with water from the clear running stream of Beale's Creek, on the 6th of September we stood away W. by N., passing *No. 2 Percy*, *Sphynx*, and *Pine Islands*, &c.

Smokes from fires kindled by the blacks rose from the hills of the former.

13. The *Spitfire* passed the high peak of Prudhoe Island at 9 p.m., and during the night and following morning, the others of this group.

At 10 a.m. of the 7th September L islands [5] rose 3 miles off on our port beam.

These islands are lofty, some clothed with stunted dark green timber to the hill tops; the last-named sweeping upwards in beautiful grassy slopes from a rocky shore to a more peak shaped summit; deep ravines furrow its sides, clothed with dense dark scrub.

[page 14] 14. At 2 p.m. we ran along under the precipitous sides of M Island, [6] which rises sheer out of the sea in crags and grassy and thickly wooded steeps of *Eucalypti*, *Fici*, *Pines*, &c., to an elevation of 874 feet.

---

[5] Keswick Island and neighbouring St Bees Island, named by Lieutenant Matthew Flinders in 1802.

[6] Later renamed Brampton Island

15. Dense clouds of smoke rose from the fires of the natives on the W. side of the island, from which direction we heard a loud report as of a large gun, and proceeded to ascertain its origin.

Rounding the north point of the island, we found an excellent harbour, formed by two islands approaching each other at right angles, and only separated by a narrow boat passage, and enclosing a bay completely sheltered from the prevailing south-easterly winds; and anchored within it in 5 fathoms water close in shore.

16. Blacks were seen on the beach carrying their canoes up out of the water into the thickets.

They then ascended the hills, and saluted us with wild cries, as we proceeded to our anchorage.

17. We landed in the whaleboat on the Western Island, the natives awaiting our approach on the beach, but taking again to the hills when we neared the shore.

18. Four very neat bark canoes were found close to the beach, and another was seen paddled by a native at the opposite side of the harbour.

They are formed of three sheets of bark taken from a Eucalyptus; are about 8 feet long, 3½ feet broad, and 20 inches deep; are pointed and turned up at both ends, and are very neatly and strongly sewn together with a long, tough, cane-like creeper.

Two cross sticks between the gunwales keep the whole in form.

19. In each canoe was a very neatly-made paddle, ornamented with crosses of red paint, or raddle, on the blade.

Several large shells to hold water or bail out, a piece of *Vauda Ceruliensis* of about 6 inches long (purpose unknown), a long coil of fishing line very neatly made, probably of the fibre of the *Pandanus Palm-leaf*, and to which was attached a spear head of about 5 inches in length neatly barbed, and pointed with a very hard and sharp fish bone.

These spear heads are fitted into a socket in the end of a long spear, which the blacks throw from their canoes with considerable precision into dugong, turtle, or other large fish.

The barbed point remains in the flesh, the spear floats off and is picked up; the line, fast to the spear head is then paid out, and the fish is run and killed, very much as Whalers capture their more gigantic prey.

From the appearance of a dugong found newly killed in a camp on Upstart Bay, it would appear that the canoe is kept close over the fish, which, on rising to the surface to blow, is assailed with waddies and spears, there being no less than 13 broken spear points in the head and shoulders, the snout and forehead being also considerably disfigured by the blows of Nullah Nullahs, (native clubs).

On the eastern coast of Ceylon, a similar method of fishing is used by the natives, with this difference that the barbed point is fixed in a socket in the end of an arrow, and fired from a bow into the fish.

[page 15] 20. We were enabled to hold friendly intercourse with the natives, although they were very shy, their numbers, which generally inspire them with confidence, being small.

They are well-made athletic men; from their plentiful fish diet they are sleek and fat; but they have an extremely savage expression of countenance.

21. We found that the word used by these people for water is *Caalyi Caalyi*, and a good supply was found close to the beach in a grove of *Pandanus Palms*.

22. No traces of white men could be found; and we could only account for the report above-mentioned, by supposing it to have proceeded from a large stone in which water had lodged; which being exposed to the intense heat of the bush fire, had been converted into steam, bursting its stony prison-house with a report like that of a 32-pounder.

23. On the 8th September, with alight breeze from the S.E., we stood away N.W. past Linhe Peak and the islands of Sir James Smith's Group; Cape Conway and the mountain ranges forming the watershed of the River Bowen, and Repulse Bay, were visible to the W. by N. & W.

24. The islands of this group are of the same character and formation as M and L Islands, and their other sister groups of this neighbourhood.

There, however, a difference was remarked by the Botanical Collector in the Pines, which, although with many characteristics of the *Pinus Cunninghamei*, approach more to the *Pinus Cookei* of the New Caledonian variety.

25. At sundown, the *Spitfire* rounded the Western point of Shaw Island, and anchored in 12 fathoms, in its fine sheltered harbour under Shaw's Peak, of 1601 feet elevation.

The breeze during to-day and yesterday has been very light and our progress slow.

26. On the morning of the 9th September, with a light breeze from the S.E., we passed through the straits between Cape Conway, Pine Head, and the opposite Pentecost, Whitsunday, and Passage Islands.

Near our anchorage we narrowly escaped running on a dangerous sunken rock, not previously entered in the chart.

27. The coast of the main land is a chain of wooded mountains, running from Cape Gloucester behind Port Molle, and terminating in the high bluff headland of Cape Conway, their steep sides descending right into the sea.

Pines of the genus *Auracaria Cookei* are sprinkled over the mountains of the mainland and the adjacent islands, the latter have lofty crags and peaks of basalt, porphyry, and other igneous rocks.

Grassy and wooded hills with deep ravines, full of towering dark green pines, slope to the margin of the water, or descend in low cliffs of red porphyry steep into the foreground of deep aquamarine blue sea, gently ruffled by the soft south-easterly trade wind, forming a succession of scenes of remarkable beauty, as mountains, cliffs, and pine fringed bays **[page 16]** were passed in rapid succession, worthy to rank with the smiling coasts of the Levant, Italy, or the sunny islands of the Pacific.

28. At 2 p.m. we rounded Molle head, the south point of Port Molle, and ran into an anchorage at the south of the harbour, close under the long narrow island which encloses it on this side.

Fires of the natives were visible on the northern shore.

29. The ribs of a vessel of about 200 tons, wrecked apparently some time back, appeared above water close in shore, and on the beach we found about 2 tons of coal in a heap, and picked up a dinner knife, on the ivory handle of which the initials M. B. were neatly cut.

30. Port Molle is a very fine harbour, lying in an amphitheatre of mountains which rise sheer out of its waters to elevations of from 500 to 2,000 feet, those on the western or mainland side being the loftiest.

The entrance is faced by high islands.

31. At the southern corner of the harbour, a narrow but deep passage enters from the sea near Pine Head, the high mountains descending on either side steep into its waters, giving it somewhat the appearance of a Norwegian Fiord.

32. Although a, beautiful harbour, it is however unfortunately of no immediate utility as a port for the adjacent country of the mainland, being, like Port Bowen, very much isolated from the district behind, and the whole of the W. side of the harbour being shut in by an impassable barrier of steep lofty hills covered with dense scrub.

33. A gorge appears to penetrate to the N.N.W., connecting the coast at the base of Mount Dryander with a valley running into the interior.

But not only would a large sum of money be required to clear the scrub and rocks for a roadway, but no site exists for a township, where the valley debouches on the harbour.

I consider that Port Molle can put forth no claims to be adopted as the port of the Kennedy distinct, although its individual merits – its position in the centre of the inner route to Torres Straits, and in the midst of a multitude of islands of great fertility – will doubtless, at no distant date, bring civilization and commerce to its shores.

34. The *Seaforthia* and *Pandanus Palms*, the *Auracaria Cookei*, bottle-trees, acacias, a splendid scarlet flowering *Erythrina*, and Hybiscus, were observed in the thickets of Molle Head.

Eucalypti, Ash, Tea-trees, Figs (*ficus elastica*) formed the forest of the lower hills and flats, the rocks of which were of igneous formation and covered with long rank wiry grass.

35. White Cockatoos hovering near the beach led us to excellent water, in wells of the natives.

Redbills, and two sorts of fish hawks, one white and the other black and white and as large as an eagle, frequent this neighborhood.

Turtles, Snapper, Kingfish, Mullet, Barracouta, and Sharks were seen in abundance.

[page 17] 36. On the morning of the 10th September, the *Spitfire* left Port Molle with a light S.W. breeze.

At 11 a.m. we were becalmed 5 miles off shore, and the broad range and lofty peak of Mount Dryander, covered to the summit with dark forest and scrub, rose from the water's edge due W to a height of 4,566 feet.

37. The coast country here very much improves, open forest and richly grassed hills and ridges coming down to the salt-water.

Numerous smokes of native hush-fires rose all along the mainland and the islands.

38. Two natives came off to us in a canoe similar to those at M. Island, and were induced to come alongside.

We exchanged with them empty bottles, and wax vesta boxes, for fishing spears, lines and hooks ingeniously cut out of tortoiseshell; also the flippers and best portions of a turtle, which made an agreeable change to our salt fare.

They examined with astonishment the deck and arrangements of the *Spitfire*, also the spyglass, and a piece of broken looking-glass given to the elder of the two; and whilst admiring himself in it, his contortions and grimaces were truly absurd and amusing.

39. We learnt from these natives the words: —

Boonga — Turtle.
Boonga nullo — Turtle flippers.
Eura — Water.

They also use the words *Tungul*, gin, (i.e. native woman), and *Mill-mill*, the eye, used by our Moreton Island blacks.

On the lower Burdekin, distant about 45 miles to the W., the universal word for water is *Yarra-Yarra*, and it is worthy of remark that while ignorant of the meaning of the terms *Caalyi-Caalyi* and *Yarra-Yarra* used by neighboring tribes, these people make use of the same words for *a gin* and *the eye* used by a tribe nearly 600 miles off, and which are not used by those occupying the intermediate districts; while the Burdekin blacks use a word for water used by the aborigines of Port Phillip to signify a river.

When I visited Upstart Bay in November, 1859, the hostile natives made use to my party of several words used in Moreton Bay such as "yan away" *anglice*, "go away, ' a word not even aboriginal, but a corruption of English.

Also " Boomerang,' a word made use of I believe by no tribe of the eastern coast of Australia in their aboriginal state.

These latter words must have been picked up from white or black sailors cast away on the coast; but the question arises whether the former are not remnants of a once universal Australian language, portions of which are yet to be found with the same significance among widely separated tribes.

I should hope that the civilizing of the aborigines of the Kennedy district and a knowledge of their language will tempt individuals to prosecute researches on this subject, which I doubt not would elucidate some valuable links in the natural history of the Australasian branch of the human species.

40. The blacks left us and paddled towards Hook Island, distant some 10 or 12 miles to the eastward; the rapidity with which they **[page 18]** propelled their canoe astonishing us not a little.

41. Our being eye-witnesses of the actual passage of these aborigines from the mainland to the islands — finding a granite stone in a canoe on an island of sandstone formation, and also seeing tracks and camps on islands which were uninhabited during our visit, I think satisfactorily prove that the natives who visit these islands are only birds of passage, crossing from the mainland and from island to island in their bark canoes, when the weather, of which, like most savages, they are probably admirable judges, appears favorable for the navigation of such slender craft; or when fish or turtle arc in season, and the waterholes are supplied with water.

42. With a light breeze we passed about one mile from Capo Gloucester, which is a perpendicular double bluff, apparently of Basaltic formation, of which the crags of Stirling and the Salisbury Crags near Edinburgh arc remarkable examples.

43. At 6 p.m. we were abreast of the almost perpendicular mountains of Gloucester Island, whose granitic cliffs and crenelated peaks rose above us right out of the sea to an elevation of 1800 feet.

44. The whole of the dark rugged face of Gloucester Island towards the sea was sparkling and glittering with hundreds of smouldering logs, the results of a bush fire, having in the darkness of night the effect of a mountain city whose thousands of lights were reflected in the dark heaving billows below.

At 8 p.m. the *Spitfire* rounded the Northern Cape of the island, and anchored about one mile within it in 8 fathoms, mud, a cable's length from the shore.

45. It blew very fresh from the N.E., coming down upon us through the deep gorges of the Cape in heavy gusts, alternating with intervals of dead calm.

46. On the morning of the 11th September we weighed and stood away about 1 mile S. of Middle Island across Edgecumbe Bay, to examine the port named Port Denison, discovered by Mr. Sinclair, of the schooner *Santa Barbara*, in September, 1859.

47. Imposing mountain ranges and high peaks occupy the whole background of the western seaboard of the bay, of which Cape Upstart forms the N.W. extremity, and among which Mounts Abbott and Roundback, and Mount Aberdeen, and Clarke's Range of my expedition of 1859, are prominent.

At 10 a.m. the low grassy undulations and rocky heads of the island and mainland forming the eastern boundary of Port Denison, lay before us in the western corner of Edgecumbe Bay.

48. An opening of about half a mile in width between a rocky headland attached to the mainland and the northern headland of the island, forms the gate-like entrance to the Port.

49. Mr. Smith sounded the passage in, and returning took the *Spitfire* safely to her berth within the Port under the island, which he **[page 19]** named Stone Island after Mr. R. P. Stone, 3rd officer of the expedition, and who also accompanied me as surveyor in my expedition of 1859-60, to these latitudes.

There are three fathoms right into the harbour without any bar whatever, and we anchored in the same depth of water on a sandy clay bottom, within a cable's length of the island.

50. This island is somewhat of a horseshoe form, the concave being to the eastern, the convex forming one side of the southern entrance to the Port, and the northern head the southern head of the north eastern or main channel by which the *Spitfire* entered.

51. The island is formed of the same hard sandy conglomerate which I found in November last 60 miles to the W.S.W., and in which a large creek, issuing from the gigantic granitic gorge through which I forced a passage to the then unknown lower Burdekin, has formed cauldron-shaped holes and fissures — or has taken advantage of their previous formation, at some remote period, by the action of the sea, to furnish them with a copious and never failing supply of most beautiful water.

52. Port Denison is formed by a headland of grassy hills terminating in a harrier of rocks with abrupt pyramidal-shaped termination, running out from the northern shore and enclosing the Western corner of Edgecumbe Bay.

From the S. side of the north eastern entrance to the S.E. its boundary is formed by *Stone Island*, by a long sandy spit and sundry coral reefs to the S. of it.

It is sheltered to the S.S.E. and S. by coral reefs, through which there is a 5-fathom channel – by an island named Thomas Island after a companion of Mr. Sinclair's, and also now one of our crew, of that name, and by the mainland, which also forms the whole western and northern boundaries.

53. The port approaches the elliptical in form, is about 3 miles in length by 2 miles in breadth.

The soundings over the whole of the available and most sheltered parts are nothing under 18 feet at low water, spring tides, and in many places exceed 20 feet.

It is well sheltered from all winds, and in fact I have great pleasure in endorsing Mr. Smith's opinion, which acquires the more weight from his great professional experience in these matters, that Port Denison is a very fine little harbour, and among those of Eastern Australia only second in beauty and capabilities to Port Jackson.

54. Low hills and swelling ridges clothed with rich grass, and openly timbered with Eucalypti, Ash, Ironbark, &c., &c., descend to the shores of the harbour and neighbouring coasts, here and there bounded by a very narrow belt of mangroves; altogether the most beautiful coast country I have yet seen in Australia.

55. Being anxious to attain a view into the interior, and to determine the capabilities of two large valleys seen from the Port as channels of communication between it and the valleys of the lower Burdekin and Bowen Rivers, discovered by me last year; with the assistance of the whale boat's crew, afforded by Mr. Smith, I landed and ascended an

[page 20] isolated hill one mile from the western corner of the harbour, and which I named Mount Gordon, after Mr. Gordon, another companion of Mr. Sinclair's when he discovered this port.

56. From Mount Gordon I obtained a fine view of the hack country and a bird's eye view of Port Denison and Edgecumbe Bay, bounded to the E. and S.E. by the towering ranges of Gloucester island and Mount Dryander, of which latter the hills of this island appear to be a continuation.

57. From the S. end of Edgecumbe Bay, a broad low flat country, apparently covered with mangroves towards the the E. side, extends across from the head of the bay to the head of Repulse bay.

A channel was supposed here to connect these bays, but I saw none, and do not believe in its existence.

This low country completely isolates Mount Dryander and the Port Molle ranges from the high coast range of the main, which commencing S. of Port Denison runs parallel to the coast of Edgecumbe Bay across the low country, and the shores of Repulse bay, until cut by the broad valley from the S.W., through which I believe, another river leading from behind the Fort Cowper ranges, must reach the sea.

58. From behind Port Denison a broad fertile valley, richly wooded, runs to the S.S.W., between this coast range and the back of Clarke's range on the Bowen river, of my late exploration.

In the centre of this valley rises a lofty peak of white coloured, bare rock, its jagged perpendicular summit having the appearance of the crater of an extinct volcano.

Its apparent elevation is about 2500 feet.

59. I believe that a short and easy route may be obtained by this valley to the heads of the Suttor, Isaacs, &c., and that Port Denison will become the Port of these districts, the most distant of which is not more than 130 miles from it.

60. Another broad valley towards the S.W. comes from between Clarke's range and Mount Aberdeen, and another from the W. divides the huge mass of the latter mountain from the similarly shaped Mount Abbott, of about 4000 feet elevation.

There is apparently much fine, rich, open, fresh and plain country in all these valleys, and that below Mount Abbott forms a level and direct route from Port Denison into the heart of the country, bringing the districts of the Bowen and lower Burdekin within 50 miles, and the central part of the district of the upper Burdekin within 100 miles of the Port.

In November last I also observed a similar broad valley running out to the coast on Upstart Bay on the north western side of the Mount Abbott range.

61. A river not previously known, was seen from Mount Gordon to traverse the broad valley between it and Mount Abbott, running about 1½ miles behind Port Denison into the sea, at the N.W. extremity of Edgecumbe Bay.

Its well defined course was distinctly seen for a long way coming down the S.W. valley, and a tributary down that beneath Mount Abbott. Its bed is broad and sandy, lined with high flooded Gums, Tea Trees, and Casuarinae, with a stream of running water.

Its banks **[page 21]** were lined with camps and bush fires of the natives; in fact at 11 a.m. every day clouds of smoke rose from the whole country, and even were there only a few blacks in the neighbourhood of each smoke, this would prove the locality to be very thickly inhabited.

62. Mount Gordon appears to be composed principally of gneiss, but veins of a fine grey granite and quartz appear on its sides, quantities of the latter stone being strewed over the surface.

63. A new Hybiscus was found in the scrub of the hill top; also a bush with hook-shaped thorns, like the "Wait-a-bit thorn" of the Cape of Good Hope.

Quantities of the small fig were also found on the summit of Mount Gordon.

64. The *Spitfire* left Port Denison on the morning of the 12th of September, with a fair wind, and in the afternoon, the towering rugged wall of Cape Upstart, of 2000 feet abrupt elevation, rose close on our port beam.

A very swift tide-race and fresh Easterly wind carried us round the Cape, and we anchored close under its western side in Upstart bay, in 3 fathoms, sand and clay bottom.

65. Cape Upstart, I may remark, is a range of high, rugged, rocky mountains of coarse granite, with many crenelated peaks rising very abruptly out of the ocean, and appears to be a continuation of the ranges of Mount Abbott &c., as Gloucester Island, to which it bears a remarkable resemblance, is of Mount Dryander.

66. Upstart bay is well sheltered close under the Cape, from easterly and south-easterly winds, but is open to the N and NE.

I ascended a hill at the S end of the high land of the Cape, and sounded the whole of the head of the bay (while Mr. Smith was employed in taking observations and angles,) and found not only that many miles of salt water swamps and mangrove creeks, penetrating the low land at the head and W. side of the bay, completely cut off the Cape from the mainland, and the creeks from the sound country behind, but that the whole S. and W. shores of the bay are shoal, the receding tide leaving large tracts of mud flats exposed.

I named the hill which I ascended Mount Myrtacea, from a very fragrant and pretty species of the myrtle with small white blossom scented like hawthorn, found among the rocks of its summit by Mr. Fitzallan.

67. Large old camps of Blacks were found close to the beach under spreading umbrageous fig-trees.

In one, the skeleton of a large Dugong was lying beside the proportionately large hole in the ashes of an old fire in which he had been roasted whole.

Turtle and fish bones were also strewn about – evidence of the good feeding the inhabitants of this locality enjoy.

68. The smokes all round the Bay gave evidence of a numerous population, but of this fact, and that they are savage and hostile,

I had personal experience last November on the western shore of the bay, where they attacked my camp twice in one afternoon in large numbers, and were **[page 22]** only prevented from "rushing" and overwhelming our small party by a timely charge on horseback.

69. On the morning of the 15th September, I accompanied Mr. Smith and party ashore and to the top of a high peak of the Cape, being anxious from that elevation carefully to examine the low country extending across Cape Bowling-green to the base of Mount Elliot, where I had last seen the channel of the lower Burdekin in November, 1859.

70, Our view from this commanding and isolated position embraced the whole coast from Gloucester Island and Mount Dry under to Cape Cleveland and Mount Elliot, including *Edgecumbe*, *Abbott*, and *Bowling-green* Bays.

71. I could distinctly trace the valley of the Burdekin from near my Mount Wickham of 1859, to the south, to the base of the towering Mount Elliott to the north.

Gregory's and Stokes' Ranges, which are named after two of our great land and sea explorers, bound its valley to the east.

Leichhardt's Range, through which I forced a passage in November last from the upper and lower Burdekin, and then named after that lamented explorer, bounds the western side of the valley.

I then found that the river 10 miles below Mount McConnell has broken its way through this mass of granitic mountains, having cloven a passage for about 15 miles in a north-easterly direction; precipitous mountains heaped in wild confusion rising sheer out of its bed, which is also rendered totally impassable by huge boulders and slabs of granite and trap rocks; on the east side it flows suddenly forth through a mountain gateway into the rich and beautiful broad valley of its lower course to the N.N.W., exactly contrary to the S. S. easterly direction of its upper channel.

72. From our elevated position I could trace the river on the western shore of the bay discovered and explored by Captain J. C. Wickham, R.N., in 1839, for a long distance, in the direction of Mount Elliot.

Its mouth is 2 miles wide, its bed large and sandy.

73. I was now at once struck with the peculiarity of the long, low sandy Cape Bowling-green spread out to the eye like a map.

Totally unlike all the other headlands of this coast, which are mountainous and rocky, it runs far out to sea a dead level sandy Cape between the mountain walls of Capes Upstart and Cleveland, and is seamed by many lines of river timber and by the bed of a river (the Wickham above named) too large to exist independent of the Burdekin in the narrow belt of land between its lower course and the ocean.

I therefore came to the conclusion, which I immediately communicated to Mr. Smith, that Cape Bowling-green was a delta of several mouths of the Burdekin, and that the river found by Captain Wickham, R.N., was one of those mouths.

74. From my knowledge of the interior to the N.W., I was also enabled to state that the high ranges running out on *Halifax Bay* **[page 23]** presented an impenetrable barrier to the farther progress of the Burdekin to the north; therefore that to proceed to where those ranges abutt directly upon the ocean to the westward of Magnetical Island, would place us beyond the river and confine our search for its mouth, on our return, to Cleveland, Bowling-green and Upstart Bays.

75. On the 14th of September, with half a gale of wind from the eastward and heavy sea, the *Spitfire* ran along the low coast of Cape Bowling-green, and on the 15th, at 9 a.m., past a sunken rock and another 6 feet above water inside it, off Cape Cleveland, rounded the headland, and anchored in Cleveland Bay in smooth water.

A bush fire was raging on the hills of the Cape, and blacks were seen on the beach.

76. I accompanied Mr. Smith and Mr. Stone ashore.

These gentlemen were taking sights on an isolated rock.

The Botanical Collector, Jamie Alexander (one of our black boys) and myself formed a guard on the rocks above.

Some blacks came down and we gave them biscuit and tobacco, &c., being kind and civil to them, which they appeared to appreciate.

They, however, began to feel us all over, and especially the Botanist, who was in good condition — smacking their lips and giving other unmistakeable evidences of a relish for human flesh, and a desire to gratify it.

More blacks came down; they attacked us with stones and spears, when we were necessitated to fire upon them, repulsing them with loss.

77. Cleveland Bay is about twelve miles in length and breadth; surrounded on the land side by towering ranges of mountains, of which Mount Elliot, elevated 4,200 feet at the south end, is the loftiest.

78. Cape Cleveland runs out from the main in a chain of high hills, exactly similar to Gloucester Island, Cape Upstart, and Magnetical Island, which forms the north-western boundary of the bay, only of lower elevation and covered with Pines, Eucalypti, &c.

The south end of the cape is divided from Mount Elliot by an expanse of low mangrove swamps and mud flats, intersected by salt water creeks; of which more hereafter.

79. I have no doubt that in the process of the gradual upheaval of the Australian Continent, the small channels between Gloucester Island and Mount Dryander, and Magnetical Island and the mountains behind, would, in the course of future ages, rise to the same elevation as the connections between Capes Upstart and Cleveland and the mainland, and present the same appearance of mangrove swamps and mud flats, as I also believe that in ages past both the latter promontories have been islands, as Gloucester and Magnetical Islands are at the present day.

80. The rocks of Cape Cleveland are granite and syenite, of which I brought away specimens.

A very auriferous looking quartz lay on the surface in small pieces, similar in appearance to that found on Cape Upstart, but I found none in situ.

Two fine specimens were also found in a canoe taken from the hostile natives; also a good specimen of **[page 24]** felspar.

The hills of the south end of the cape are formed of a coarse granite, the summits being piled up with huge boulders and slabs.

81. The above canoe taken from the natives to prevent co-operation from the mainland, was quite different from the others along the coast, being formed of one large sheet of bark about 10 feet long, sewed up at either end with the same cane-like creeper used for this purpose all down the coast, and was capable of carrying 6or 7 men.

The paddle was of different and more rude construction than those farther south, and the natives themselves taller, very black, and of a more savage cast and expression of features. I have remarked that the aborigines about M Island take out the right front tooth — those on Mount Dryander the left, while those seen in Cleveland and Halifax Bays have no such peculiarity at all.

82. At daylight on the 17th of September, the *Spitfire* left Cape Cleveland and beat up against a fresh north-westerly breeze for the northern Cape of Magnetical Island, where I landed with a party, by request of Mr. Smith, to cut a pine spar, our top-mast being sprung.

83. Magnetical Island is high, rocky, and pine-clad, similar in character to Gloucester Island, Cape Upstart, and Cape Cleveland; and is separated from the mainland by a narrow strait partly dry, exposing sand banks at low water.

The formation of this island also is granitic, immense boulders of this rock lining the shores and being piled on the summits and strewed over the slopes of the hills in wild confusion.

Lofty pines spring out of the crevices of the rocks, giving considerable beauty to the scenery.

The timber of this pine is rather heavy, but tough, and with a beautiful grain, qualities which recommend it for house and boat building, furniture, &c.

It appears most nearly allied to the *Auracaria Cookei*.

84. Natives and canoes were seen on the beach, and the smokes of their bush fires rose from all parts of the island as we coasted its western side to our anchorage between it and the mainland, in the south corner of Halifax Bay.

85. On the 18th September we examined the whole coast of Halifax Bay for an outlet df the Burdekin, as far as latitude 19 deg. south, where the towering ranges sweeping round from Mount Elliot from the south-south-east descend right into the sea from an elevation of 3,500 feet.

86. To the north, these ranges continue in a high unbroken chain along the shores of Rockingham Bay, embracing the high outline of Mount Hinchinbrook in the distance.

87. From Magnetical Island to Mount Hinchinbrook many lofty and rocky islands were plainly visible.

88. The coast of Halifax Bay is low, with a narrow belt of mangroves, faced by a beach of dead coral, sand, and shells.

Behind the mangroves, swelling open forest ridges and low hills rise gradually back **[page 25]** to the range, which embraces in its bend an extent of some 20 miles by 8 of fine country, openly timbered, and well adapted for cattle.

89. Numerous natives were seen all along the beach, and their smokes rose from every part of the coast, hills, and the islands towards the afternoon, rolling up in huge volumes across the sun, tinging every object with a lurid glare, and greatly impeding our view of the country from the masthead.

90. Having established the fact, by close examination, that the Burdekin does not run into Halifax Bay, and that the high ranges which form the watersheds of the Burdekin, Perry, Mitchell, Lynd, and Kennedy, interpose an impenetrable barrier to its passage further to the northward, a decision at which my previous knowledge of the interior greatly assisted me in arriving, I stated to Mr. Smith that the Burdekin lay between us and Cape Upstart,

The *Spitfire* was accordingly put about, and we commenced our homeward route, at a distance of 800 miles from Cape Moreton, and anchored again in our last night's berth.

91. On the morning of the 19th of September, with Mr. Smith and party, I landed and ascended the grassy hills forming the south headland of Halifax Bay.

92. In the clear morning light a beautiful and very distinct bird's- eye view was obtained of the coasts of Halifax Bay, Cleveland Bay, and the mountains, valleys, and low country of the mainland.

93. Immediately beneath the hills, a large extent of salt water swamps, mud flats, and low plains, covered with large ant-hills, stretched for some seven miles to the south, occupying the position assigned in the maps to "a large sheet of water seen from the hills at Cape Cleveland."

This does not, therefore, exist; but I have no doubt that during the rainy reason the whole of this flat forms a lake of five or six miles in diameter, and was probably seen and reported on under such circumstances.

94. A broad valley from the S. between Mount Elliot and the western ranges debouches on this swamp, and is identical with that near the S. entrance, in which I last saw the Channel of the lower Burdekin in November, 1859.

This valley then lay right in the course of the Burdekin, and large river timber which from the hills I saw enter it, confirmed me in the belief that the river ran into the sea by this route.

This proves not to be the case; the Burdekin must suddenly sweep round to the E. at the W. base of Mount Elliot; and the river timber of the valley must be that of a tributary from the N. ranges.

95. The whole coast country seems to swarm with blacks, whom we found here, as elsewhere, very hostile.

96. From the hill top three large camps of them wore seen on the

[page 26} flat close below. They saw and saluted us with loud yells, sent away the old men and gins with the camp equipage, and prepared for a move in our direction, which convinced me, from former experience, that mischief was brewing.

97. Mr. Smith had just finished his observations on the hill- top, when a number of these natives came over the shoulder, and seeing us descending, got between us and the boats.

At the bottom of the hill we had to descend about 30 feet of precipitous rocks right in face of the natives, who poised their spears, yelling and dancing in a very hostile manner, which for the safety of the party obliged us to lire upon them, when they retreated.

We made a slow and orderly retreat to the boats, halting at intervals to face about and fire upon the more daring who followed us up, throwing spears.

We had just shoved off, when about forty armed natives appeared on the beach, having crossed the hills by two different routes to cut off our retreat.

98. The aborigines on Magnetical Island having watched the two boats' crews away from the vessel, came down on the *Spitfire*, armed, in two canoes, but were repulsed by Mr. Bousfield, by a discharge of the brass gun.

99. Having completed the examination of Halifax Bay, Mr. Smith weighed, stood round the island, and again anchored in Cleveland Bay, which we also carefully explored.

100. In the south corner, a three-fathom entrance was found into three large creeks, which receive the drainage of Mount Elliot; and from the hills of Cape Cleveland, which we ascended, the main branch was seen to come from a large sheet of water to the south-east of it, running into Bowling Green Bay; wreck, drift timber, &c., showed that this channel carries a good deal of flood water into Cleveland Bay.

Two of these creeks would afford harbours for small coasters, for the requirements of the fine country behind them.

101. From the hills at Cape Cleveland I could distinctly see the point where I left the lower Burdekin in November, 1859, and am of opinion that these creeks form part of the system of its mouths.

102. The whole of this part of the coast appears to be of granite formation.

103. On the 22nd September, the *Spitfire* left Cleveland Bay and stood into Bowling Green Bay, to examine the large entrance seen from the hills of the cape.

104. On the morning of the 22nd September we stood into the western corner of Bowling-green Bay, to examine the large opening in the mangroves leading into this sheet of water, and which appeared like the entrance of a river south of Mount Elliot; we anchored off its mouth in three fathoms, about one and a-half miles off shore.

[page 27} 105. I accompanied Mr. Smith with two boats to examine this estuary, which we found barred right across in a semicircular form, about three-quarters of a mile off shore.

Crossing the bar with seven feet of water, a three-fathom channel was found within, and we proceeded up a very promising-looking river, with deep water, broad reaches, and evidences, by wreck and drift timber, of being the drain of a large tract of country.

106. We found the entrance to the creek seen to come from Cleveland Bay, about three miles up the river, and Mr. Smith named it Crocodile Creek, a large crocodile being seen basking on a sand spit at the junction.

107. About four miles up the river, the mangroves alternated with small plains sprinkled with a few Eucalypti, Ash, Pandanus Palms, &c.

108. We followed this branch up for about 12 miles, where the sandy bed was so shallow that progress in the boats was impossible.

109. The general course of this channel is from the S.S.E., coming from the direction of the Wickham River and of the point where I left the Lower Burdekin, and which was not more than 20 to 30 miles off.

Its sandy bed is formed of the detritus of primary rocks full of gold- colored mica, and exactly similar to that of the whole course of the Burdekin.

Here also we found the white duck, seen only on the lower course of that river.

110. I could distinctly trace the valley of the Burdekin coming in this direction, and feel perfectly satisfied that this is one of its mouths and no salt water creek, having all the characteristics of a river and being quite different to the other creeks and estuaries we have seen.

111. This branch of the Burdekin is evidently turned eastward by the south-west spurs of Mount Elliot, and sweeps close under his south-eastern base into Bowling Green Bay.

Small plains studded with clumps of eucalypti, tall cycas palms, and tea-trees, extend from the river bank to the base of the mountain, which rises massive and blue to a height of 4200 feet, its summit shrouded in a heavy bank of black clouds.

112. No opening could be found through the bar into the river, the whole estuary being evidently silted up by the sand deposited by it, and beaten back by the prevailing N.E. and S.E. winds on a lee shore..

113. On the 23rd September, Mr. Smith weighed and stood round the shores of Bowling-green Bay, to the S.E., where another broader mouth was discovered.

114. Off this opening, sand banks ran out for long distance, shoaling the water to 3 fathoms, 6 miles from the shore.

The whole of Bowling-green Bay is shoal water, and must be white with breakers in easterly gales.

It now blew very strong from that quarter, with **[page 28]** considerable lee; and our position, embayed on a shoal lee shore, was a particularly unsafe one.

A thunder-storm broke over us in the night.

115. On the morning of the 25th of September, although the weather was very threatening, and heavy clouds continued to obscure the mountains, I accompanied Mr. Smith, in the whaleboat, to examine the entrance of the river, which was a mile broad and breaking right across on a semicircular bar, extending from the projection of Cape Bowling-green on the E., far to the Westward.

We succeeded in effecting an entrance, dragging the boats over the bar, and found three channels within, joining at the embouchure.

116. We proceeded up the largest channel with a strong flood tide, and found shortly that the others joined it.

The general course was from the S.S.E., and its character very similar to the more westerly channel under Mount Elliot.

We explored it for about 18 miles, when it became narrow, and, night coming on, we were obliged to stop and camp in a wet salt water swamp under drenching rain.

117. Dense mangroves, of three distinct varieties, as usual monopolise the banks of the lower course of this channel.

Farther up, these alternate with open grassy country, thinly timbered with Eucalypti, Moreton Bay Ash, Leichhardt-tree, &c., &c., and well adapted for cattle pasture.

118. The sections of soil exposed by the water on the banks of the river, shewed a dark chocolate, and at times black, alluvial deposit, suited to the growth of rice, sugar cane, tobacco, Indian corn, &c.; but the inundations which sweep over this low country, during the tropical rains of the summer season, will be a serious obstacle to rendering this immediate locality of any agricultural utility for many years to come.

119. About 16 miles from the mouth, the channel contracted to a creek, but having deep water and certain undoubted indications of its origin in a river.

120. Where open ground enabled a view to be obtained of the adjacent country, a very marked depression was evident from either bank of the river to the base of Mount Elliot on the one side, and towards Upstart Bay on the other, thus placing this outlet of the river at a higher level than those to the West and East.

121. This peculiarity of formation, I think, satisfactorily proves the delta character of the promontory of Cape Bowling-green; as, doubtless, as in those of the Nile, Ganges, and other large rivers, the original main channel has, by ages of deposit, raised the level of its bed above the surrounding country, rendering its mouth and course more shallow, and throwing the major part of its waters into lateral branches hitherto of minor importance.

This at once accounted to me for the absence of very high flood marks, as any excess of water must, on topping the lip of the river, flow down the declivity on either side to the lower channels, and I have no doubt that through the Bowling-green **[page 29]** delta will be found many old channels, in various stages of obliteration, either narrow and canal like, or shallow and sandy, and only used by the highest flood waters of the Burdekin, which, although 80 feet high on its lower course where I saw it, here spreads over the whole low country.

122. Abundance of mullet, bream, sharks, and multitudes of young crocodiles, were seen in the waters.

The large black duck and shell-colored and white duck of the Burdekin frequent this locality; native companions and turkey bustards stalked over the plains; curlews, oyster catchers, white and grey, and black and white cranes, large dark brown herons, shags, and

thousands of small finches and song birds inhabit the shores and thickets of the channel; numbers of pelicans were squatted on the sand-banks at the mouth of this as well as of the Mount Elliot branch, winging their flight from the south; and as I saw large numbers of them in that direction on the lower Burdekin and in no other part of the district, I look upon this as additional evidence in proof of these channels being mouths of that river.

123. As the position of the *Spitfire* was a most dangerous one, on the morning of the 25th of September we pulled down the river and went on board, and at 1 p.m. we weighed and stood out of Bowling-green Bay against a stiff north-easterly wind and heavy sea.

The former veered to the south-east as we rounded the Cape and lasted all night, and on the afternoon of the 26th, we beat up under Cape Upstart and anchored in our old berth.

124. The closed up mouths of several other channels were distinctly seen on both sides of the Cape Bowling-green delta.

On the east side, besides the Wickham River, were two others of considerable size, but quite closed by banks, dry at low water and with a heavy break a long way off shore.

125. Being most anxious to obtain a near bird's-eye view of the course of the Wickham and into the country beyond, across the Bowling-green delta, towards where the channel of the Burdekin turns abruptly to the eastward, Mr. Smith weighed at 4 a.m. on the 27th September, stood across the bay, and anchored under Beach Mount near the mouth of that river, three-quarters of a mile off shore, in two fathoms.

126. Aborigines were seen on the beach with a canoe.

We landed, and found the newly killed carcass of a dugong, from which they were cutting steaks to roast on the coals in a very systematic manner, using for knives pieces of sharp edged quartz, of which I obtained specimens.

The blacks retreated at our approach, many of their smokes rose from the land behind the hill; and to prevent molestation, this being part of the tribe which attacked me last year, we took possession of the canoe, and it is now in the Botanical Gardens in Brisbane.

127. From the summit of Beach Mount, I was happily enabled by the excellent view obtained ol the Wickham River, of the whole Bowling-green delta, to the base of Mount Elliot, and the point where I left the **[page 30]** lower Burdekin in November last, to satisfy myself that the first-named river, the two estuaries explored by us in Bowling-green Bay, and the one in Cleveland Bay, are unquestionably the long sought mouths of the Burdekin.

128. The Wickham River is the principal channel; the mouth next to Mount Elliot the second, and the eastern branch in Bowling-green Bay, and the creek in Cleveland Bay, the third and fourth, and of least importance.

129. It is evident that the River Burdekin has not always been choked up by this delta, but that at some remote period, it ran right out into a fine bay, formed by the headlands of Capes Upstart and Cleveland, in one unbroken channel, carrying the detritus of the primary rocks of a course of nearly 400 miles out to seaward, where, met at the entrance of the bay by the wash of the Pacific, propelled by the north-east, east, and south-easterly trades, it formed the hook-shaped sand-spit, which is now the extremity of Cape Bowling-green.

130. The deposit of detritus in succeeding ages then doubtless gradually increased this external accumulation, until the whole of the bay at the outfall of the river became an immense delta, extending from Beach Mount to Mount Elliot, and connecting with the point of the original outside bank.

131. This deposit doubtless raised the bed of the central channel, until being elevated as we found it above the adjacent lowlands, the waters of the river were diverted into the Wickham, the Mount Elliot branch, and a multitude of minor channels, radiating through the root of the Cape Bowling-green delta into the bays on either side.

132. The result of these influences, therefore, has been to split up the magnificent channel of the lower Burdekin, of nearly a mile in width, where I left it in November last, into three large and a multitude of small channels; to convert its original principal channels into mere tide ways to divert its waters into minor channels, and to render every one of these unfit for the purposes of commerce and navigation.

133. Although there is water within, to afford navigation for flat bottomed vessels and steamers, every one of these mouths is completely barred from ingress from seaward, excepting at high water for very small vessels, whose entrance and exit must depend upon the strength and direction of the trade winds.

134. As the future development of this district brings the various estuaries of its sea-board into requisition for commercial purposes, doubtless the Wickham and the Mount Abbott Creek will connect the dray roads of the interior with the excellent roadstead under Cape Upstart; — but those channels falling into Bowling-green Bay can be put to no such purposes, the multitude of shoals and the entirely unprotected state of this bay rendering it not only utterly useless as a roadstead, but a very dangerous anchorage.

[page 31] 135. An extract from the journal of Captain Wickham R.N., formerly of H.M.S. *Beagle*, with which he kindly furnished me on my departure to explore the Burdekin last year, gives a distinct description of the Wickham River: —

" There are many creeks into the low land at the bottom; and on the west shore of the bay, there is a river also on the W. side about 2 miles to the N. of a rocky and wooded mount (Beach Mount), that rises from the west shore, and appears like an island with a smaller one to the land side of it.

The entrance to this river is nearly two miles wide, but almost entirely blocked up by sandbanks, all of which are dry at low water, leaving a shallow passage on the N. side.

There is a bar across, about a mile and a half off shore, which appears to break at all times of tide, and there is no passage in, even for boats, except by getting inside the sandbanks a little to the south of Beach Mount (as they extend as far as this), and then keeping close to the mangroves, and which can only be done at half-flood.

"For a few miles this river had a very promising appearance, generally about 200 yards wide; the banks of sandy soil 5 to 8 feet high.

We proceeded up about 12 to 14 miles, at which place it appeared to fail among sandbanks, and was not more than 6 inches deep at high water spring tides.

There the water was quite fresh at high water ...

Gums and Tea-trees were the principal trees, with some Palms and Acacias.

"From one of the hills Lieut. Stokes saw what appeared to be the mouth of another river, 3 or 4 miles to the northward of this one; may there not be several such streams running through this very low land, and forming different outlets to some large river or lake? [7]

The character and appearance of the country appears favourable to such a supposition." — Captain J. G. Wickham s journal, 25th June, 1839.

135. This we had found to be the case, and that the Wickham River is the main outlet through which the major part of the Burdekin fresh waters reach the ocean.

136. I therefore informed Mr. Smith that I was now perfectly satisfied that we had completely settled the question of the mouths of the Burdekin, and having Captain Wickham's description and the Admiralty Chart of this south-eastern branch, that it was quite unnecessary to put the Queensland Government to the expense of a second survey thereof, especially as the *Spitfire* was lying in a very critical position, on a dead lee shore, surrounded by sand banks, and the wind freshening from the N.E..

We, therefore, deemed it necessary for the safety of the expedition to weigh and stand out of the bay, thankful to Providence for a continuation of most favorable weather, without which it would have been utterly impossible to carry out the objects of the expedition by the thorough exploration of about 140 miles of lee shore, which we had now accomplished.

137. With a larger party it might have been possible, by a pedestrian expedition, to connect the head of navigation of the various **[page 32]** mouths, with my last year's exploration; but as three men were required constantly in the *Spitfire,* outside, four men would be required to guard the boats in the river in the most favourable situation, and one hand was on the sick list from a snake bite — six out of the complement of 14 could only be detached for a service, which, in a country swarming with hostile natives, I last year found

---

[7] Dr. Leichhardt had not then discovered the Burdekin.

sufficiently dangerous, though with a party of five, well armed and mounted, to render an orderly retreat over Leichhardt's Range imperative.

138. When I proceed to the district to perform the duties of the appointment which I have the honour to hold, I shall take the earliest opportunity of running down the river, and completing the survey of the 20 miles of its course yet unconnected.

139. Within the western bend of Cape Upstart there is excellent anchorage, and abundance of fresh water coming down from the rocky promontory.

The Long Beach, a semi-circular extent of ridgy and level forest ground, through which a stream of clear cold water falls in cascades over the granite rocks into the sea, will form an excellent site for a township, on the roadstead; which, being then uncertain from the sandy character of its lower course what the navigable capabilities of the Burdekin might turn out to be, I strongly recommended as a port for the district, on my return to Brisbane in February last.

140. Port Denison, however, having now been decided to be an excellent harbour, and well situated with regard to the Kennedy District, and in every respect the most suitable for a settlement, we returned to it on the 29th of September, to complete a survey and exploration of its waters and shores, convinced of its superiority as a port in every respect, even had the Burdekin been found to be a navigable river.

141. It was blowing half-a-gale of wind from the eastward when we entered the port from Edgecumbe Bay, but we shot between the heads into smooth water.

142. The north head is pyramidal-shaped, formed of huge granite blocks, is about 70 feet high, and will afford an excellent site for a lighthouse, by which vessels will be enabled to run into port in the darkest night with perfect safety.

143. The *Spitfire* remained at anchor under Stone Island, until the 9th October, when Mr. Smith had completed his survey of the port, and I had made a thorough exploration of its shores, found fresh water, and decided upon an excellent site for a township.

144. During our stay a series of easterly and south-easterly gales gave us every opportunity of deciding that the port is a very well sheltered, as well as a commodious harbour.

145. The most sheltered part of the port is the northern corner.

[page 33] Here a smooth sandy beach, is hacked by a level open ridge, extending for about a mile, between two low rocky promontories, abutting on the water, and sweeping back for a mile, in a semi-circular form, in sound ridges and undulations, up to three higher hills to the north, altogether forming a beautiful site for a township.

146. The new river is distant only one and-a-half mile from this site; and abundance of excellent water was obtained in large wells of the natives close to the beach, in the old bed of a creek.

A reservoir dug here by simply emptying an old waterhole, would afford sufficient for the requirements of the port for some years to come.

Mr. Smith watered the *Spitfire* here, and the water came in as quickly as it could he taken out in buckets.

147. The country around, with the exception of some small scrubs and mangroves towards the ocean, is all open forest and plains.

Abundance of line granite for buildings can be obtained on the spot.

Ironbark, Flooded Gums, Tea-trees, and Leichhardt-trees (the latter a very fine timber,) are to he found in the adjacent valleys and watercourses; while Gloucester Island and those of the Cumberland Group afford a supply of pine timber of very superior quality, which cannot be exhausted for years to come.

148. As I have before stated, Port Denison is easy of access from all parts of the interior, by routes with which I am already acquainted; and I have great pleasure in strongly recommending this to his Excellency the Governor, and the Queensland Government, as the site most suitable for a first settlement and port for the new Kennedy District, of which I have the honor of being Commissioner.

149. On the morning of the sth of October, I was detached by Mr. Smith with two boats' crews, to construct a well to water the *Spitfire*, and to plant out a garden with vegetables, at the native wells above-mentioned.

150. As I approached the beach a number of armed natives appeared to wish to dispute our landing, but as the object in view was a necessity, I grounded the boats 100 yards off shore, formed open line, and advanced through the water and up the beach.

The natives saluted us with loud yells of hostility, dancing the war corrobory, but retired at our approach into a small strip of scrub commanding the wells.

This we entered in the same order, cleared it, placed sentries in case of attack, and by sundown Mr. Fitzallan had completed two gardens, and the men had formed a well four feet square by 4½ feet deep, lined with saplings, stones, and coral, in which the water rose at once 2 feet; and I had explored the low hills behind, enabling me confidently to recommend this as the most suitable site for a township.

151. In a small valley of these hills, on a knoll in the forest, we found the newly-made grave ol a black. It was raised in a mound lying N.W. and S.E., the direction of sepulture among the ancient **[page 34]** Celtic race.

It was covered neatly with Tea-tree bark, kept down by logs.

A space was swept clear around for some yards, and the spear of the deceased, one end charred by fire, was stuck in the ground at the S.E. end, and beside it was a bed of clean reeds, but whether intended for the seat of lamenting relatives, or whether, partaking in the belief of the North American Indians and other savage races, both ancient and modern, that the deceased enjoys the pleasures of the chase in his after state, these people leave the spear for his hand and the grass bed to recline upon after the chase, it is impossible to decide, though I am inclined to believe this to be the case.

152. Many well beaten paths around the grave were closed, by having branches laid across them; and a quarter of a mile off a line of branches, like a low fence, extended from the beach inland, as if to cut off this neighbourhood from present use, no fresh tracks being found within it.

A similar place was found on Stone Island, and is evidently a part of the system of "Taboo" practised by the islanders of the Pacific.

153. During our stay in Port Denison, our last remaining sheep was allowed to run on Stone Island.

He was killed and brought on board at our departure, and found to have improved in condition so rapidly, as to confirm me in my previous convictions, that the grasses and climate of this district are well adapted for the rearing of stock and growth of wool.

154. On the 9th October the survey and exploration of the port and neighbourhood being completed, the *Spitfire* stood out by the south passage, and assisted by favourable winds, arrived at Cape Moreton on the morning of the 18th of October, and at Brisbane, off the Government wharf at 11 p.m. the same evening; having, in an absence of two months all but four days, traversed a distance direct of about 1600 miles, minutely examined about 140 miles of coast, discovered and explored the mouths of the river Burdekin, and made an accurate survey of a port which must prove of very great advantage to the magnificent district of which it is the natural outlet.

155. Taking a cursory glance at the physical facts arrived at by this expedition, and by my own explorations of the Kennedy district, I would shortly allude to the geological structure, the vegetation, the animal life, the human species, and the climate of these regions.

156. From Cape Palmerston, the southern boundary of the Kennedy, to Port Denison, the whole coast is composed of metamorphic rocks, of which gneiss, quartz, and clay slates are the most common; basalt and porphyry having apparently broken through them locally, as about Slade Point, Cape Hillsborough, and Port Molle; sandstones and other palaeozoic rocks occupy the Isaacs and Suttor countries.

157. From Port Denison to the northern boundary of the district in Rockingham Bay, the coast, its promontories, and mountains, including **[page 35]** the upper and lower valleys of the Burdekin, are nearly all of primary formation, granites of many varieties, syenites, &c.

To the south-west of the Burdekin, however, I found much sandstone of a very red color, and saw cliffs of it far to the west and south-west of the Cape and Belyando Rivers; which, in detached ranges, appeared to be the continuation of the great Australian Cordillera, from the watershed of the rivers Cape, Belyando, Nogoa, Maranoa, Warrego, and Barcoo, towards the Cape York Peninsula, between the waters of the Pacific and the Gulf of Carpentaria.

The palaeozoic and metamorphic again occur in the valley of the Lower Burdekin, and the former, at latitude 19° S. on the Upper Burdekin, occurs in juxtaposition to fields of basalt.

Here on limestone hills, about 1500 feet above the sea, I found large fossil bivalves and corals similar to those found by Dr. Leichhardt, and reported upon by the Rev. W. B. Clarke.

Metamorphic rocks again occur on Halifax and Rockingham Bays, with granites of fine varieties.

158. During my expedition last year, I found considerable tracts of country in the neighbourhood of Leichhardt's and Robey's Ranges, bearing auriferous indications of a very marked description.

On the ridges beneath the granitic mountains of Robey's Range especially, were mounds and huge blocks of white quartz, the strata of the watercourses exposing clay slates, psamnite, and quartz, in layers; blocks of the latter rock and quantities of black sand occupying the beds of the creeks.

The appearance of the country to the south-west and south of Port Denison leads me to anticipate auriferous indications in that neighbourhood also.

The Rev. W. B. Clarke has long pointed to this region as the seat of the future gold-fields of the north, and my observations certainly give additional probability to the speculation, that here the future will develope the principal auriferous deposits of Queensland.

159. It is a peculiar geographical feature of north-eastern Australia, that the high ranges which branch off from the great main Cordillera, north of latitude 28° south, run out in a northerly direction, generally terminating in the Pacific, in abrupt rocky promontories of high elevation, such as Cape Moreton, Sandy Cape, Capes Capricorn, Townshend, Hillsborough, Gloucester Island, Upstart, Cleveland, Magnetical Island, Melville and York.

The ranges to which these headlands form the coast terminations can, however, in many instances, he traced further to the north in the high rocky islands and submarine mountain pinnacles of the Pacific, the latter being, on this coast, neither created nor diminished by

the coral insect, but are portions of the great Australasian upheaval, taken advantage of by these tiny oceanic architects to found and rear their submarine structures.

The most remarkable instances of these prolonged headlands are the Flinders' Rocks, Smith's Rock, &c, off Cape Moreton, Townshend and Percy Islands, &c., and the submarine pinnacles beyond them; — Holborn Island, with reference to that of Gloucester, and the Magnetical and Palm Islands with regard to Mount Elliot and the chain of which he forms the grand and towering coast termination, whilst the islands and reefs of Torres Straits continue the Australian backbone range right over to New Guinea.

Between these great spurs of the Eastern Cordillera of Australia, are the channels of **[page 36]** those large rivers of the north-east coast, which hear the drainage of its eastern slopes to the Pacific, such as the Brisbane, Mary, Burnett, Fitzroy, Burdekin, and Kennedy.

The Burdekin, after traversing the upland valley of its upper -course, breaks through the granitic Leichhardt's Range to a lower level, and although diverted into a N.N.W. course by local mountain impediments, is finally guided into the ocean by the ranges terminating in Capes Upstart and Cleveland, between which it has formed the Great Cape Bowling Green delta.

159. I have brought in the *Spitfire* a collection of geological specimens from every point of the coast where we touched, and which, when they have been examined by the Rev. W. B. Clarke, I shall beg to be permitted to hand over to the Government.

160. The vegetation of these latitudes, although of course partaking far more of the tropical character and luxuriance than the more southern parts of Queensland, with the exception of the absence of the box and apple tree, and a change in the character of the pines and sundry other trees and shrubs, appears to lose none of the woods or plants of the latter region, all being found in the soil and situation suited to their growth, and appearing more dependent upon these than upon latitude and temperature for their existence.

Deciduous trees and shrubs are more numerous, and palms, figs, wild plums, and other edible native fruits, are more plentiful than to the south.

A far greater variety of flowering and sweet-scented shrubs and plants give beauty and sweetness to the scrubs and shady nooks of the mountain gorges and the rocky ravines of the coast and islands.

The grasses of the district are of great variety, richness, and nutritive property; and there is very little scrub, offering harbor to hostile natives or an escape for cattle, to prevent the speedy occupation of this splendid district.

161. In animal life the Kennedy is not very prolific, I presume from the numbers of aborigines. It can however boast of three new species of kangaroos and wallabies, viz., a

large handsome dark chocolate coloured kangaroo, with dark tan muzzle, tail, and paws very similar in shape and size to the walleroo; a lighter chocolate coloured rock wallaby; and another mouse-coloured variety, with whitish tail and muzzle.

There is certainly a greater amount of insect and reptile life. Snakes are abundant and of large size; a green snake was seen at Port Denison 10 feet long and four inches in diameter. Crocodiles are abundant in the rivers and large creeks.

Last year I saw several in the Lower Burdekin and Bowen, and two in the Upper Burdekin, about 200 miles from the sea.

They are of two distinct species; one a very large yellowish crocodile about 20 feet long with broad webbed feet; the other smaller, about 16 feet long, nearly black, and with smaller feet, shaped more like the flippers of a turtle.

Those found in the Fitzroy are very similar, and I have no doubt will prove to be identical, although they appear to become more numerous in the tropics.

162. The aborigines of the Kennedy are more numerous than in **[page 37]** any other part of the Eastern coast of Australia.

They are generally large athletic men, and have as yet proved hostile to the few white wanderers who have traversed the country. I have now been able to hold intercourse with them in almost every part of the district, both on the sea board and in the interior, from latitude 18° 48' 0" south to the heads of the Isaacs, and to the westward of the Cape River, and can confidently assert that they have no admixture of the Malay, and in no particular differ from the Alforian type peculiar to the Australian savage, farther than may be occasioned by differences of climate, locality, and food.

That the coast blacks are cannibals I have no doubt, but I believe that this fearful propensity commences only near the Tropic of Capricorn.

Not only have I heard evidence of this from eye-witnesses, both as a gastronomical and superstitious rite; but I can discover nothing in the character of the aborigines of the north-east coast to warrant the supposition of their innocence of those outrages against humanity which have been, and still are, practised by their intellectual and physical superiors and neighbours all over the Pacific.

The now semi-civilized and noble New Zealander was but the other day a cannibal; and I have heard no sufficient argument against the existence of this fiendish practice among a race, ranking, unquestionably, with the lowest of the human species.

I do not think that the blacks of the interior are cannibals; they obtain abundance of animal food from the kangaroo species, but on the coast the latter are scarce, and the natives are glutted with rich oily fish, including dugong and turtle, which creates a craving for animal food.

The aborigines of the Kennedy have certainly appeared to me to have more intellect than their southern neighbours, although this varies with the locality; and I have no doubt that they may ultimately be made more useful when the advantages of submission to the white man have become apparent to them.

In their weapons and in every other respect they are very similar to the rest of their countrymen, excepting that the workmanship and ingenuity displayed in the erection of their huts, and formation of their canoes, nets, fishing lines, dilly-bags, clubs, and weapons, is superior to anything I have seen elsewhere in Australia.

163. The climate of the Kennedy District, although decidedly tropical, is particularly healthy; the Easterly Trade Winds moderating the temperature at all seasons, while the direct rays of the summer sun, which in these latitudes are extremely penetrating, are generally subdued or wholly obscured by the dense clouds of the rainy season, which sets in in November and December with tropical severity.

164. In 1859 the rains commenced on the coast on the 20th of November, and in the more elevated part of the district of the Upper Burdekin, in the middle of December, lasting for six weeks, with thunderstorms, and heavy rain day and night, like the Indian Monsoon, flooding the creeks and rivers, and rendering travelling both difficult and dangerous, when practicable at all.

During the whole time that I was in the district, viz., from October, 1859, till the end of January, 1860, the prevailing wind was from the N.E., and the highest reading of the thermometer was 98° Fahrenheit in the shade in December; the lowest reading of the same month **[page 38]** being 71°, and the mean temperature for the month 83|° Fahrenheit in the shade of a tree.

No hot wind was experienced in the district; and I attribute to its position between the Pacific and the Gulf of Carpentaria, and north of the furnace-like blasts which sweep out of the central desert over New South Wales and Victoria, the equable and moderate temperature of the climate, and the regularity of the periodical rains.

165. I should have begged to apologize for the length of this report, but have considered it my duty to lay before you, for the information of His Excellency Sir George Ferguson Bowen, and the good of the Colony, such information as I have been enabled to collect concerning a district which, to predict, will, at no distant date, form a very valuable portion of the Colony of Queensland.

I have, &c.,

GEORGE ELPHINSTONE DALRYMPLE,

Commissioner of Crown Lands for the Kennedy District.

APPENDIX A. EASTERN COAST OF AUSTRALIA.

Spitfire rock awash at H. W. is situated in Whit-Sunday Passage, with Shaw's Peak bearing N. 74° E.

CONTAINED ANGLES.

Shaw's Peak 81° 52' right extreme Shaw Island,

Peak Pentecost Island 81° O' Shaw's Peak,

Right extreme Shaw Island 73° 36' Cape Conway; which gives a distance of miles from the nearest point of land, near Shaw Island: situated on the right hand side of Whit-Sunday Passage going to the northward.

Joseph W. Smith, R.N.,

Commanding " Spitfire."

APPENDIX B. LIST OF SPECIMENS

Collected by Mr. FITZALAN, during the Expedition to the North- Eastern coasts of Queensland. Arranged according to the Natural Order, with Remarks on the nature of the Trees and Shrubs so far as these could be ascertained.

1. *Acaliaceae*, a beautiful small tree with magnificent foliage.

2. *Acaliaceae*, a small growing tree. Port Molle.

3. *Apocynaceae*, a very ornamental tree with verticillate, ribbed, glaberous leaves, beautiful scarlet fruit, and thick milky sap.

4. *Rubiaceae*, a noble tree, greatly resembling the habit of the Moreton Bay fig, fruit not esteemed. Port Denison.

5. *Rubiaceae*, an ornamental tree. Cape Upstart.

6. *Moraceae*, a shrub with fine foliage and yellow fruit.

7. *Sapotaceae*, a handsome tree, wood solid, heavy/close grained, fruit not eatable. Percy Island.

8. *Moraceae*, a small tree.

9. *Rubiaceae*, an ornamental tree, same as No. 5. Cape Cleveland.

10. *Anacardiaceae*, a robust growing tree with large primate leaves, and producing large racemes of purple fruit. Cape Cleveland.

11. *Rubiaceae*, a small shrub. Cape Cleveland.

[page 40] 12. *Meliaceae*, a large growing tree with primate leaves. Cape Cleveland.

13. *Meliaceae*, a beautiful tree with dense foliage.

14. *Cycadaceae*, this is a useful and ornamental tree, about 40 feet high, producing nuts in great abundance, which are much valued by the Natives as an article of food.

15. *Myrsineaceae*, a slender growing tree found plentifully on all the river hanks.

16. *Liliaceae*, an ornamental shrub.

17. *Ehretiaceae*, a small shrub. Port Denison.

18. *Fabaceae*, a handsome tree, beautiful when in flower, wood close grained and firm.

19. *Meliaceae*, a very handsome large tree, with beautiful pinnate leaves, and plum-like fruit, which is much esteemed by the natives. Common on the coast and on some of the islands.

20. *Fabaceae*, a handsome spreading tree. Port Denison,

21. *Malvaceae*, a small tree. Cape Upstart.

22. *Sterculeaceae*, a small tree, 20 feet in height; the stem is smooth, the flower is composed of large orange petals with a purple centre, the capsules, about the size of two walnuts, and when mature the external coverings burst and display the soft downy fibrey substances like wool. But it is impossible to spin these substances into thread in consequence of the fibre being so short and brittle. It might he used for stuffing mattrasses and pillows.

23. *Fabaceae*, a shrub of little value. Top of Cape Cleveland.

24. *Myrtaceae*, a beautiful small tree with dense foliage, producing clusters of fruit, not eatable, the wood emits an agreeable aromatic fragrance. Port Denison.

25. *Myrtaceae*, one of the species known under the name of Blue Gum and Grey Gum. Plentiful on Magnetical Island.

26. *Myrtaceae*, a fine-looking tree. Port Denison.

27. *Myrtaceae*, a small tree. Cape Upstart.

28. *Myrtaceae*, a large tree with stout trunk and spreading branches, full of foliage; wood close grained and hard. Common at Cape Cleveland.

29. *Fabaceae*, a small tree with graceful pendant foliage. Cape Upstart.

30. *Fabaceae*, a shrub with handsome phyllodia.

31. *Sterculeaceae*, a beautiful tree, particularly when in fruit. Port Denison.

32. *Rubiaceae*, a pretty flowering shrub. Port Denison.

33. *Pinaceae*, a very fine tree, growing on most of the Islands, considered to be the same species with that found on Moreton Island.

34. *Myrtaceae*, a small shrub. Magnetical Island.

35. *Fabaceae*, a small tree with graceful foliage, called Brigalow by the Colonists.

36. *Myrtaceae*, a small tree, of little value. Cape Upstart.

37. *Myrtaceae*, a large tree, 80 to 90 feet high. Port Denison.

38. *Myrtaceae*, a small tree with dense foliage. Port Denison.

39. *Meliaceae*, a large and fine tree with primate foliage.

40. *Fabaceae*, a small shrub. Percy Islands.

41. *Thymelaceae*, a shrub, 6to 8 feet high. Cape Cleveland,

42. *Sapotaceae* h a small tree. Mount Gordon.

[page 41] 43. *Apocynaceae*, a shrub, 10 to 12 feet high, flowers sweet scented. Port Denison.

44. No specimen preserved.

45. *Apocynaceae*, a shrub 6 to 8 feet high, with white and scented flowers. Common.

46. *Rubiaceae*, a shrub 8 to 10 feet high, with white flower.

47. *Aurantiaceae*, a shrub 5 to 8 feet high, flowers white, fruit yellow.

48. *Ebenaceae*, a large growing tree, timber, close-grained and firm. Port Denison.

49. *Rubiaceae*, a low branching shrub of no interest.

50. *Euphorbiaceae*, a small shrub, of little beauty.

51. *Euphorbiaceae*, a shrub, with bright green foliage. Port Molle.

52. *Rubiaceae*, a large shrub, with little beauty. Port Denison.

53. *Apocynaceae*, a tall tree, with some beauty. Upstart Bay.

54. *Myrtaceae*, a small shrub, showy when in blossom.

55. *Moraceae*, a climber of robust habit. Port Denison.

56. *Staticeae*, a very showy herbaceous plant. Bowling-green Bay.

57. *Cedrelaceae*, a lofty tree with cylindrical stem and ample head, well clothed with pinnate foliage. Cape Upstart.

58. *Pittosporaceae*, a shrub, with spikes of white blossoms. Cape Upstart.

59. *Loraathacae*, a fine flowering parasite.

60. *Fabaceae*, a small shrub, with yellow flowers.

61. *Meliaceae*, a tree of considerable size, with fine spreading branches. Port Denison.

62. *Fabaceae*, a small shrub.

63. *Fabaceae*, a climber with purple seeds.

64. *Fabaceae*, a climber with scarlet seed.

65. *Pinaceae*, a magnificent tree, timber white, close grained, can be procured in great quantities on Cumberland and other islands.

66. *Fabaceae*, a handsome spreading shrub. Cape Cleveland.

67. *Meliaceae*, a moderate sized tree with fine spreading branches.

68. *Fabaceae*, a shrub with purple flowers.

69. *Fabaceae*, a small shrub, growing on the Granite Hills. Magnetical Island.

70. *Fabaceae*, an herbaceous plant.

71. *Verbenaceae*, a nice flowering shrub. Cape Cleveland.

72. *Orchidaceae*, an epiphyte plant, one of the most beautiful of Australian orchids, with spikes of olive-coloured flowers, and 2 feet long. Percy Island,

73. *Orchidaceae*, an epiphyte, same as No. 72, except that the flowers are yellow. Port Denison.

74. *Orchidaceae*, a terrestrial orchid.

75. *Orchidaceae*, a terrestrial orchid of great beauty.

76. *Orchidaceae*, a small terrestrial orchid.

77. *Fabaceae*, a beautiful shrub, with yellow flowers. Cape Cleveland.

78. *Bignonaceae*, a climber, with showy flowers.

79. *Bignonaceae*, a small shrub.

80. *Fabaceae*, a small shrub of no interest.

81. *Fabaceae*, a climber, with pale green flowers.

82. *Maleaceae*, a shrub. Cape Cleveland.

[page 42] 83. *Crescentiaceae*, tree of small size.

84. *Fabaceae*, a climber. Signal Hill, Upstart Bay.

85. *Fabaceae*, a shrub, with silvery leaves. Magnetical Island.

80. *Malvaceae*, a small tree, 20 to 30 feet high. Halifax Bay.

87. *Fabaceae*, a small shrub.

88. *Fabaceae*, a small shrub. Cumberland Island.

89. *Proteaceae*, a pretty shrub. Cumberland Island.

90. *Clusiaceae*, a beautiful tree, with thick milky sap. Percy Island

91. *Fabaceae*, a small tree. Port Molle.

92. *Asteraceae*, an herbaceous plant. Port Molle.

93. *Fabaceae*, a small shrub. Cape Cleveland.

95. *Fabaceae*, a small plant, resembling the sensitive plant. Bowling-green Bay.

96. *Graminaceae*, a small growing grass. Port Molle.

97. *Lamiaceae*, herbaceous plant of no beauty.

98. *Lamiaceae*, herbaceous.

99. *Thymelaceae*, small shrub, with heads of white flowers.

100. *Verbenaceae*, a shrub with flowers.

101. *Graminaceae*, grass of no value for fodder. Port Denison.

102. *Moraceae*, a tree about 30 feet high, with soft wood. Cape Upstart.

103. *Moraceae*, herbaceous plant.

104. *Fabaceae*, small shrub. Halifax Bay.

105. *Compositae*, a very showy herbaceous plant. Port Molle.

106. >

107. > Specimens all destroyed.

108. >

109. *Malvaceae*, a shrub 8 to 10 feet high.

110. *Malvaceae*, a large shrub. Cape Cleveland.

111. Specimen lost.

112. *Stackhouseae*, a pretty little herbaceous plant.

113. *Euphorbacae*, a small tree, with white silvery leaves.

114. *Euphorbacae*, herbaceous plant. Port Molle.

115. Herbaceous plant. Port Denison.

116. No specimens preserved.

117. No specimens preserved.

118. *Fabaceae*, a handsome shrub, with prickly leaves.

119. *Fabaceae*, seeds. Halifax Bay.

120. *Convolvulaceae*, seeds. Percy Island.

121. *Malvaceae*, seeds. Cleveland Bay.

122. *Celastraceae*, a small tree. Cleveland Bay.

123. *Fabaceae*, seeds.

124. *Fabaceae*, a small tree. Port Denison.

125. *Sterculiaceae*, seeds. Cape Cleveland.

126. *Vitaceae*, a scrambling climbing shrub.

127. *Apocynaceae*, seeds. Port Denison.

128. No specimens preserved.

129. *Asclepiadaceae*, seeds. Port Denison.

130. *Fabaceae* seeds. Port Denison.