



Casmanian Field Naturalists' Club

EASTER CAMP-OUT

1910

To Cole's Bay, Freycinet Peninsula

(EAST COAST, TASMANIA)

REPORT ON CAMP-OUT

By E. A. Elliott, Hon. Secretary

DREDGING OPERATIONS

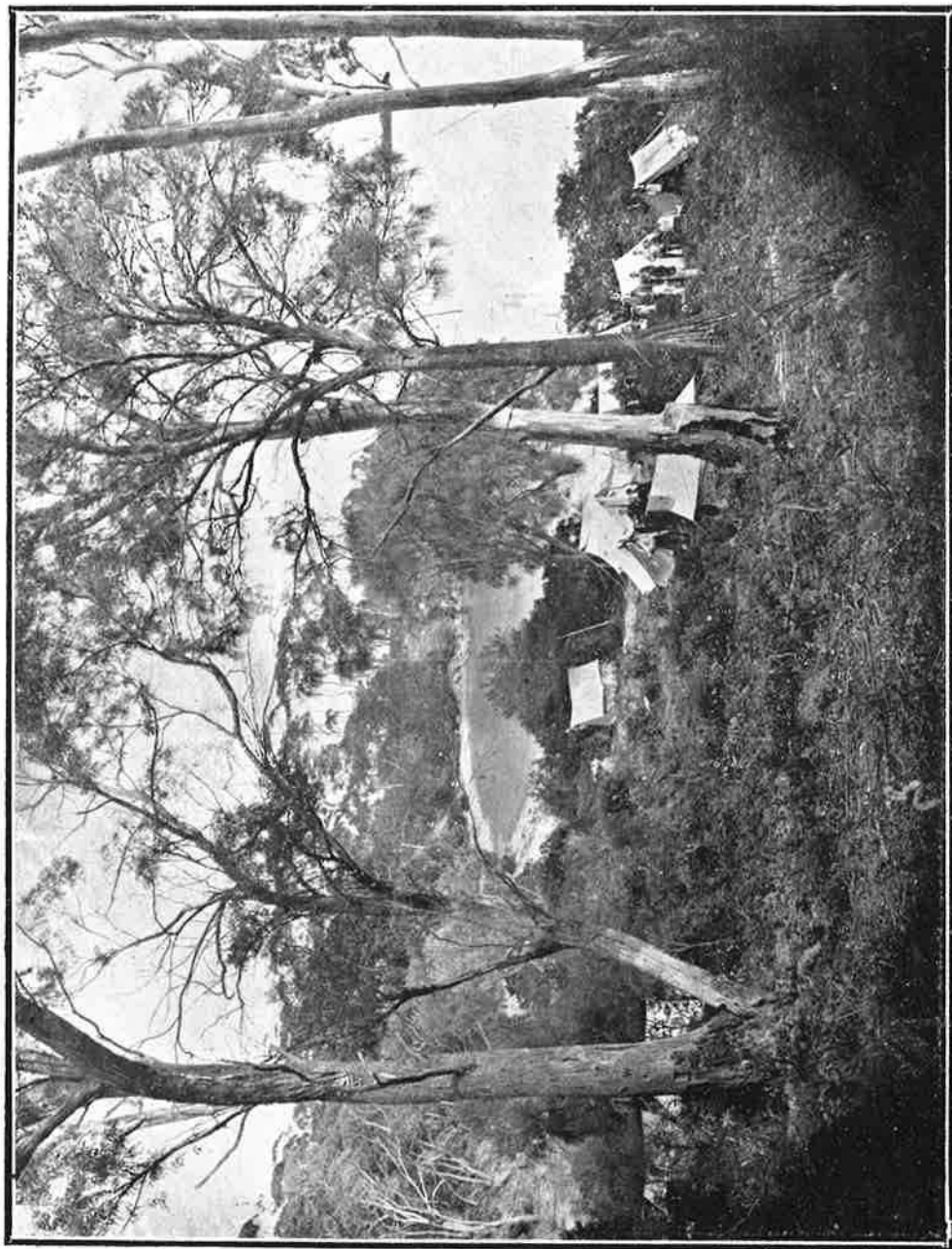
By C. T. Harrisson

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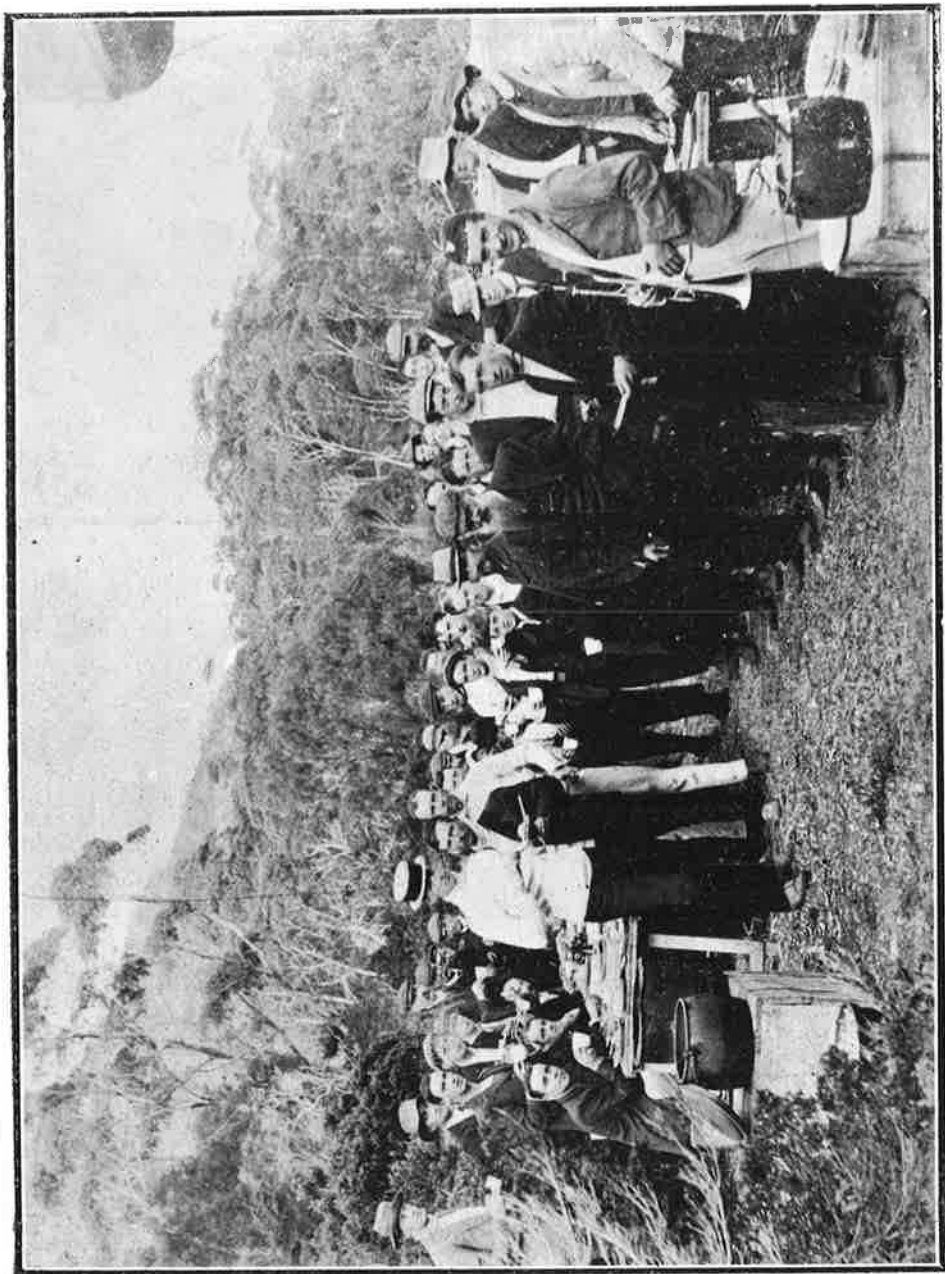


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THE CAMP SITE AT MEREDITH'S FISHERY.



ASSEMBLING FOR LUNCH.

Tasmanian Field Naturalists' Club

EASTER CAMP - OUT, 1910

By E. A. ELLIOTT, Hon. Secretary.

This club held its sixth annual camp-out at the Schoutens during the recent holidays. All going were aboard the Kookarra by midnight, and the vessel left the wharf at Hobart a few minutes past 12 o'clock on the morning of Good Friday, having on board 97 campers. The number is a record one for any private camp in Tasmania, and it is believed for any other part of the Commonwealth. It comprised club members, and a good many non-members, some of whom came from Northern Tasmania, and two from Victoria. Everyone expected, and as a matter of fact did enjoy a good time, partly because the camp was to be held on the Schoutens, partly because the weather was warm and fine, and, further, because the trip was organised by a club with a good name for Easter camps.

The exact site of the camp was at Meredith's Fishery, on Freycinet Peninsula, the part of the East Coast usually known as the Schoutens, a name given by Tasman. Oyster Bay lies between Freycinet Peninsula and the mainland, and Cole's Bay is a small bay at its head, Meredith's Fishery being the name of one of the beaches in Cole's Bay. The nearest township to the camp site is Swansea, about 12 miles on the other side of Oyster Bay.

Cole's Bay will shortly be coming into prominence in connection with the East Coast Industries Company, which recently obtained an enabling Act for the purpose of constructing a railway, manufacturing cement, working coal deposits at Bicheno, and other purposes. The terminus of the company's line and their wharves will be at Cole's Bay, several miles above the camp. The bay forms a magnificent harbour, and, as well as a utilitarian, it possesses a poetic aspect.

The granite hills, with their romantic outline and rich colouring, were a pleasant change to those who are accustomed to the basalt, sandstones, and mudstones around Hobart. Amongst the vegetation was seen the graceful form of the Oyster Bay pine, and the grass tree or Black Boy (*Xanthorrhoea Australis*) was very common. There are innumerable beaches besides, some small, whilst others are several miles in length; some com-

posed of pure quartz sand, shining and as white as snow, and others pink with powdered grains of granite. All were delightful to the eye, and were the scenes of many enjoyable swims. The peninsula from Cole's Bay to Schouten Passage is about 12 miles long, and about four miles across at its widest, while it has two necks about one mile in width, one between Cole's and Sleepy Bays, and the other between Hazard and Wineglass Bays. Although it is generally mountainous, there is a large flat on the isthmus between Hazard and Wineglass Bays, where there is a large lagoon of fresh water.

The beach chosen for the camp was an old camping ground of the East Coast residents, and the club itself held a camp there in 1906, when 40 took part. It lies at the foot of bare granite hills, and is sheltered from any boisterous weather; though a westerly wind may make the water a little rough.

When the party arrived about 2 p.m. on Friday afternoon the wind happened to be blowing rather strongly from the west, so that the landing was carried out under more or less exciting conditions. At the southern end of the beach there was a sheltered nook, where the boats were easily beached, though the goods had to be carried to the other end, where the cook's quarters were to be situated. Here was a large fireplace, and spaces cleared amongst the bushes, where tables were put up, and preparations made for the first camp meal.

The ladies' quarters had been chosen a hundred yards or so below the southern end of the landing beach, and on a slope which leads down to a second beach, where the majority used to swim each morning and evening. There were eleven tents in the ladies' quarters, and about 23 in the men's, so that the place had quite the appearance of a little town. All the first afternoon and evening were spent in putting the camp in order, when all worked cheerfully and well, and for several hours there was more industry shown than perhaps the place had seen since the early days, when whales were brought there and tried down for oil;

the remains of one of the "try-pots" still being visible on the beach.

Before the evening of the first night was far advanced most of the party sought the quiet of their tents, and the following morning made an early appearance, casting anxious looks in the direction of the cook's quarters. However, keen appetites had been provided for, and after breakfast everyone was more in a mood to express their delight at the beautiful scenes around them.

Whilst the steamer made an early start for ocean dredging with the more scientific members, other parties were preparing for fishing trips in the various boats brought up to the camp, or else for land excursions, most of the latter going over the hills into Wineglass or Thoun Bay. This is a spot which has ever held the palm for beautiful scenery in Tasmania, but, as it was the site of last year's camp, any description now would be superfluous; suffice it to say that artists and photographers were busy all the time, and the only regret was that the time passed too quickly.

The next day saw very many on board the Koonookarra again; when they were conveyed to Hazard Bay, ready for the ascent of Mount Freycinet. At least two parties made the ascent, others preferring to remain upon the beach, or else to go across the narrow neck to Wineglass Bay. Others went on to the fishing grounds at Schouten Passage, whilst the steamer was again used for dredging. Two parties reached the summit of Mount Freycinet, and when they saw the glorious panorama they were indeed glad of having gone.

On Easter Monday many stayed about the camp, whilst others went to Schouten Island in the Koonookarra; some to fish, others to sketch, but most to stay about the beaches there. Sports were organised, and made the time pass pleasantly and quickly. On arrival back at camp it was learnt that an aquatic carnival had been held there.

In the evenings large camp socials were held around a huge fire on the beach, and the reclining figures of those there, and others in boats upon the water, made a most effective scene. Some members of the Derwent Infantry Band had brought their instruments, and added largely to the enjoyment of this part of the camp life, whilst many took part in the songs and recitations during the evenings. On Sunday evening hymns and sacred songs were sung.

During the trip the fishing was fair, but not equal to that of previous trips. At one drag of the seine five or six dozen flounders were caught, and from the boats occasional perch and trumpeter and a

few crayfish were taken; whilst flathead and rock-cod were taken in numbers.

But all good things must come to an end, and the necessity of passing through the East Bay Neck Canal in daylight and with a high tide necessitated an early start on Tuesday morning. Consequently all were on board at 8 a.m. Town was reached in good time, after an enjoyable voyage.

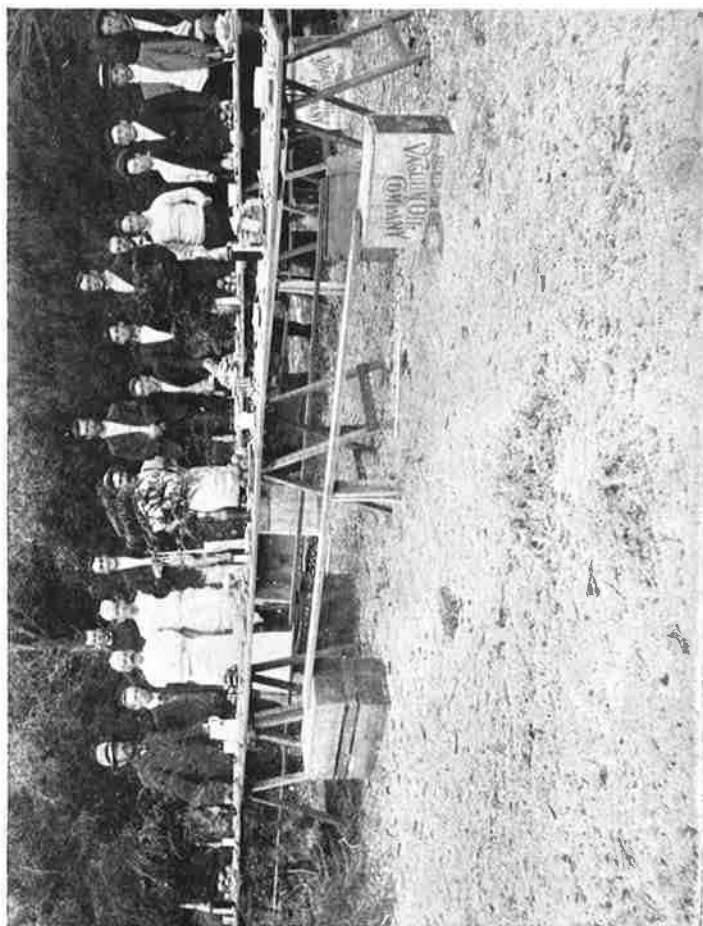
As a social function the camp was most successful, but another aspect must be taken with regard to a camp of naturalists, and it is therefore gratifying to know that the scientific results were more than had been anticipated. The locality of the camp site is undoubtedly sterile, and during the two previous camps the botany had been well worked up; nothing new was noted amongst the bird-life, and the same red granite must ever remain for the study of the geologist; but little, if anything, had previously been known of the marine invertebrate life in that locality, and dredging had therefore been made the chief scientific work of the trip. The results in this respect were excellent, some 60 species of shells new to Tasmania were obtained, and about 25 of these are new to science; other splendid specimens of very rare species were taken, as well as crustacea and other invertebrate life. Barren as the Peninsula is yet it forms an ideal national park, and the sooner it is placed under the control of trustees the better it will be. A nominal protection to game has been given to this part, but a kangaroo snare found by one of the camp members shows of what little use this is for any practical purpose. We have no true national park in Tasmania; let us, therefore, secure the Schoutens.

DREDGING OPERATIONS.

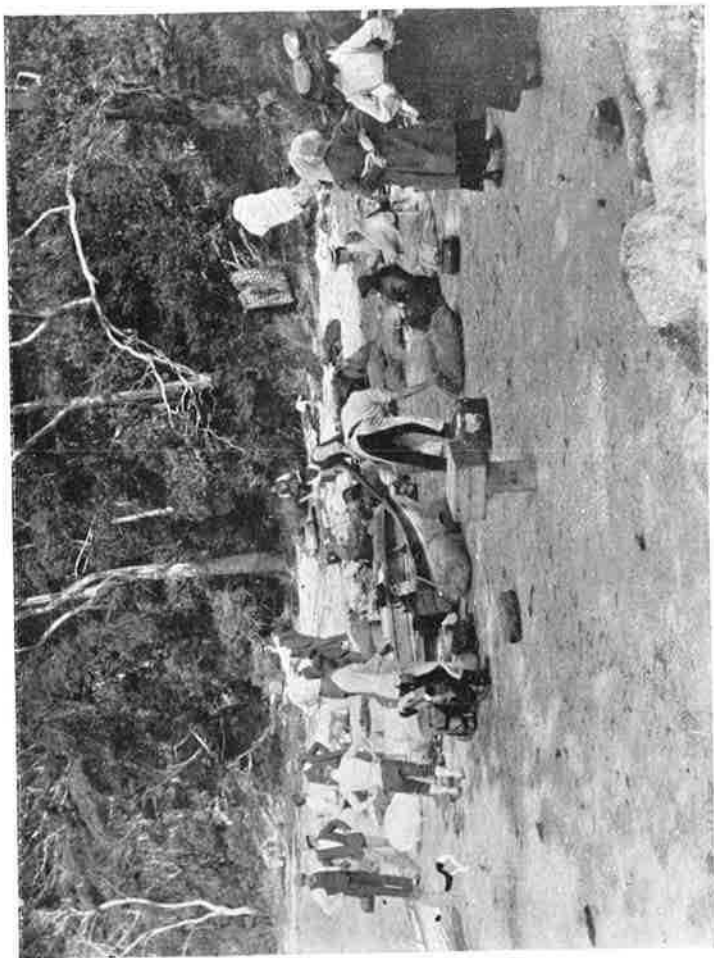
(By C. T. Harrison.)

On the morning of March 26 the s.s. Koonookarra left the Easter encampment of the Field Naturalists Club, in Cole's Bay, Freycinet Peninsula, with a small, but interested, party on board, bent on seeing what could be picked up from as much of the floor of the Tasman Sea as time and the gear on board (provided for the purpose by Mr. W. L. May, of Sandford) would enable them to sweep.

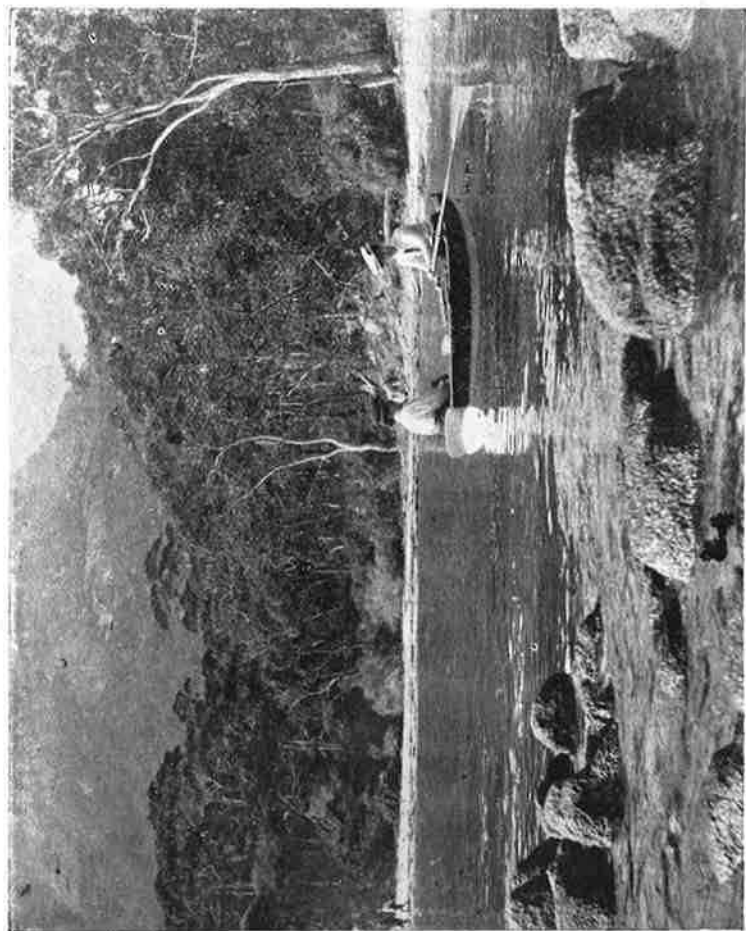
When we steamed through the Schouten Passage all was in readiness for the day's work. The dredge line, 200 fathoms (i. 200 feet) of pliant steel wire rope, not as thick as an ordinary lead pencil, yet with a breaking strain of 1,900lb., was wound upon the steam winch. From there the line "led" through blocks to the end of the long derrick, which, on ordinary



GETTING READY FOR DINNER.



SCENE ON THE BEACH.



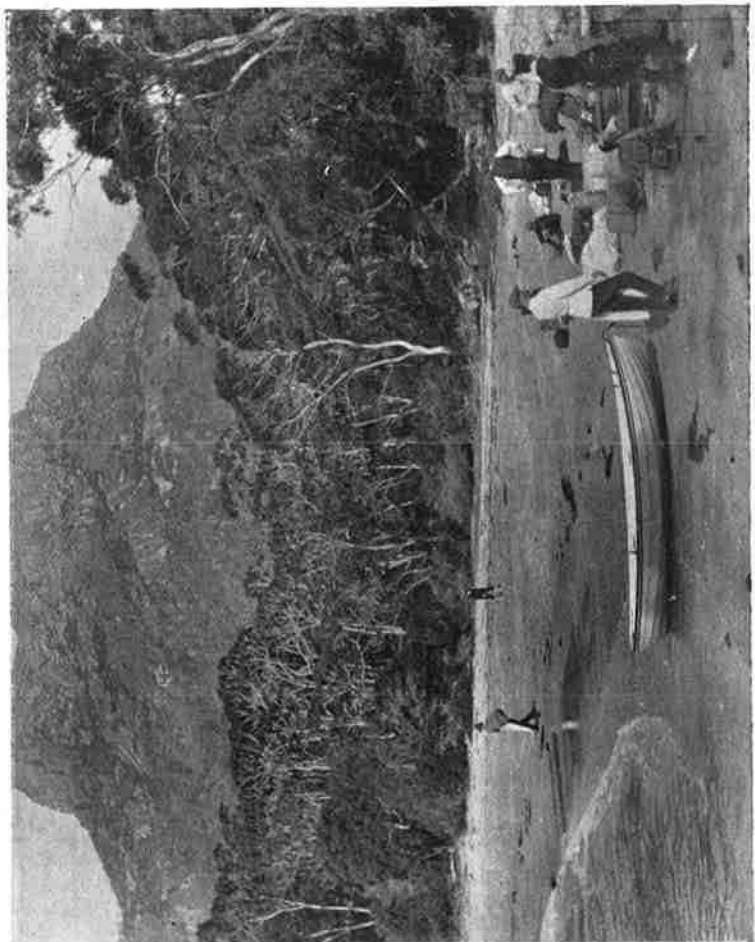
A QUIET CORNER.



GROUP OF CAMP MEMBERS AT C



LE'S BAY, FREYCINET PENINSULA.



THE BEACH, COLE'S BAY.

occasions, was used for hoisting cargo from the forehold; but on this occasion was to be used for the dredging. This not only allowed the dredge line to be towed clear of the steamer, but also enabled us to have the heavy-loaded dredge hoisted up above the bulwarks, and lowered on to the fore deck without any undue exertion on our part. The deep sea dredge was shackled on with a swivel to prevent the line from twisting up. This dredge differed greatly from the ordinary idea of dredges. It is a conical affair, a tapering round iron bucket, about 3ft. long, and about 2ft. across the mouth (or broad end), tapering down to a point at the bottom and partly closed in front with a broad rim, secured in place with three bolts and nuts. This reduced the opening by a half, preventing the sand and debris from washing out again. To the lower end of this, like the tail to a kite, was fastened a small dredge of the usual pattern at the end of 40ft. or 50ft. of rope, and finally a 7lb. weight was fastened to the wire rope in front of the bucket dredge to make it "bite."

The deep-sea sounding line was wound up ready, the hollow at the bottom of the great leaden sinker filled with soap to bring up a "sample" of the sea floor. Near by were the sieves, and the round galvanised iron tub, partly filled with water, ready for sifting the sand brought up. Nor must mention be omitted of the array of boxes and tins and specimen jars!

"More than two miles out; let's try her!" The engines were stopped, reversed to check the vessel's "way," the little dredge thrown over, and the line paid out. Then the clatter of the steam winch, and over went the bucket dredge too, and ballasted by the small dredge hanging from its lower end, floated away buoyantly astern. A vigorous tug on the line swamped it, and away the two dredges went on their mission below, the vessel, in Captain R. Holyman's able hands, "backing" or going ahead, as occasion required. Meanwhile volunteers (generally the skipper) "rove the lead." But in that deep water, despite the heavy sinker, it would sometimes trail away astern, useless as an indication of the depth. Then it would be hauled up, and a more successful "cast" made, on this occasion giving us 40 fathoms, with a "coally" bottom. Then we waited, watching the thin taut line stretching from the derrick overhead to the sea astern, and the Koonookarra rolled lazily along, broadside on to the sea, drifting quite fast enough for the work without assistance from the screw.

It was a beautifully fine day, with a light sea breeze from the south, and enough rill to convince us that we were really "on the open sea," and to make

some of us uncomfortable too. The line of granite coast north and south of us, broken and rugged, was both grand and beautiful, with the clear sky overhead, and that beautiful blue sea at the foot of the red-brown granite cliffs.

But it's time to have the dredges up—and the steam-winch clattered noisily, winding in the long length of line; while we watched (in a cloud of steam) for the dredge. It appears at last, and is hoisted above the level of the bulwarks. Some one catches at the bottom rope, sending a gallon or two of water, splashing down on us from the tilted bucket. (And I may remark after that little experience, we were more careful how we caught it.) The bucket dredge was guided in, lowered, and stood against the bulwarks. It was two-thirds full of sand; but before we attended to that, the little dredge (hanging from the bucket dredge) had to be got in. Willing hands, hauling on the rope, soon brought it in sight, with its trail of sand behind, for the stuff in this dredge gets practically sifted in its long passage from the depths below, the majority of the sand getting washed out through the meshes of the net, and as we lift it over the bulwarks a crustacean will be seen, or the long arms of some curious creature of the star-fish family, struggling from the debris of fragmentary coral and broken shells. The dredge is immediately emptied on to the deck, and eager hands seize the various treasures, each man, following his own "line," taking that which pleases him best. And the circle, clustered over that little heap of wet sand and "rubbish," had eyes for nothing else, until the "haul" was picked over!

Then the bucket-dredge received its share of attention. The wrench was produced, the three nuts unscrewed, allowing the inner rim to be removed, the dredge "up-ended," and the sand deposited in a heap on deck. A shovel, borrowed from the engine-room, passed the sand into the sieve, to be sifted out in the tub of water, and although at first it would appear to be almost "clean" sand, yet the siftings were, of course, the same as brought up by the other dredge—mainly fragmentary Polyzoa mixed with shells. The design of the bucket-dredge was to scoop up a thin slice of the sea-floor, and so secure specimens that burrow, as well as the more ordinary inhabitants of the bottom of the sea. The siftings in each sieve would be picked over roughly; then, if thought worthy another examination, would be bagged, and labelled at what depth taken. A proportion of the residue, the sediment in the bottom of the tub, was sifted again, this time through a fine hair-sieve, and the finer siftings also bagged and labelled, to yield minute species of shells to future searching.

While the dredged material was being

disposed of thus, the Koonookarra had her turn, and steamed steadily seaward. The second drag was tried when we had nearly doubled our distance from the shore, and the "lead" showed an extra ten fathoms of water; the farthest drag was attempted at an estimated distance of 12 miles off shore. But Tasmania must have "tilted" suddenly, for with all our 200 fathoms of line out, the depth there was too great for our dredges to "bite." Even the little dredge behind—with the weight of the bucket dredge in front to give it every chance—came up empty! The only thing taken was a delicate pink-coloured salpi, eight or nine inches long, lying across the handle of the first dredge, and that fell overboard before the dredge could be secured; but after desperate exertions, and with the aid of a long boat-hook, was "rescued" from the deep!

This was to have been our last drag, but the skipper had not the heart to take us back without one drag at the limit of our line, so about a couple of miles further in the engines were stopped, and we tried again with more success, the lead line giving a little over 90 fathoms.

The afternoon was getting on. It was a good steam back to Cole's Bay, with a couple of fishing parties to be picked up at Schouten Island. So we had to go—and went with mixed feelings of regret at having been able to explore so little in that deeper water (500 to 600 feet) yet with pleasurable anticipations of smooth water and a steady deck on the sheltered side of the Peninsula, which was rather attractive after five hours "outside."

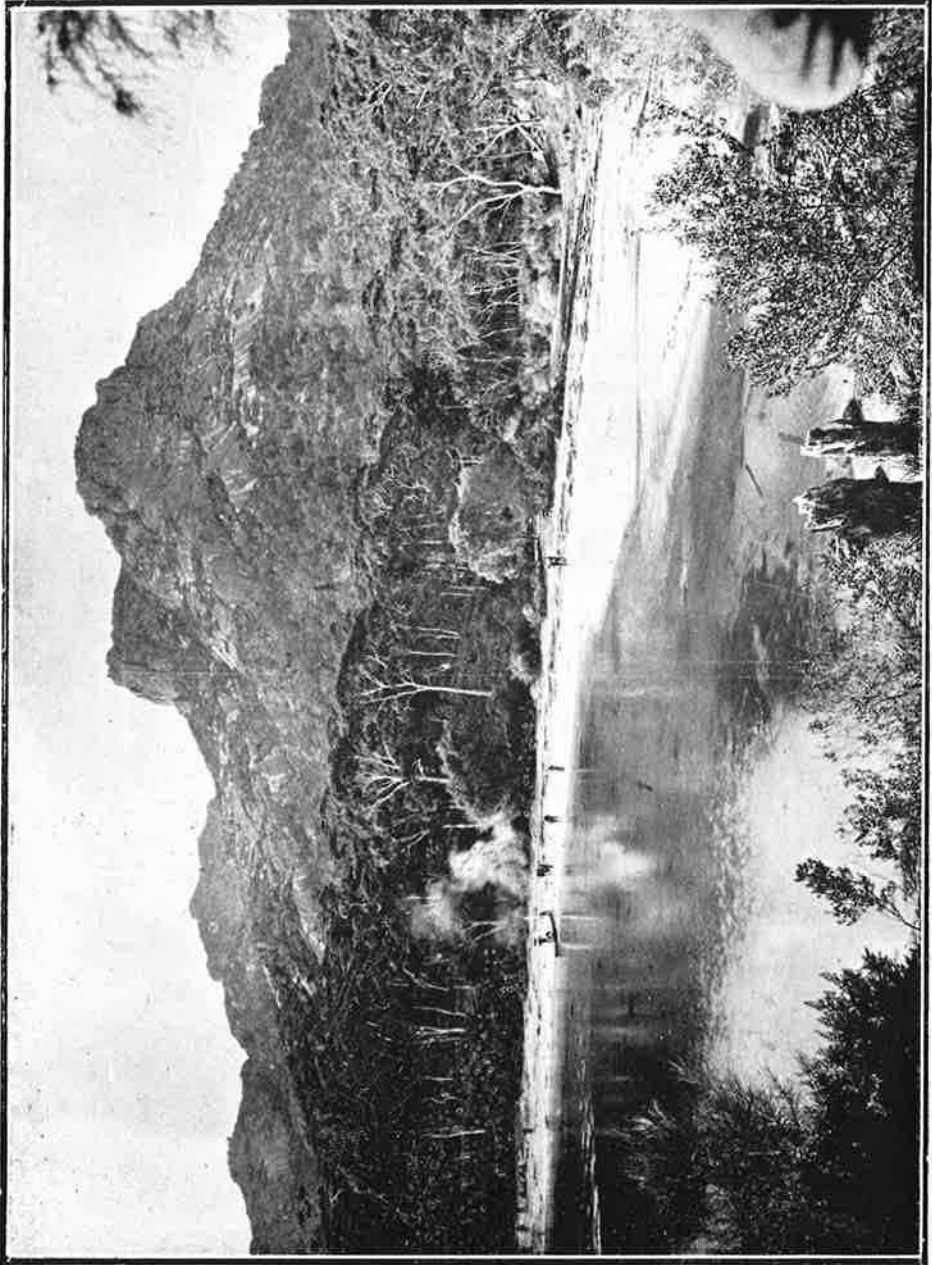
When passing again through the Schouten passage the deep-sea bucket dredge was unshackled, and the large dredge shackled on in its place, and we were the channel broadened out, and the sounding line gave 17 fathoms, it was sent over for a try; for in such narrow waters, where the tide runs strongly, rich hauls are sometimes to be obtained. But it had not been towing many minutes when the fault line suddenly "gave," and dragged limply behind. The dredge had caught upon some obstruction below, and the steel-wire rope snapped! We could only wind up the line, and, perforce, leave the dredge, perhaps for some future anchor to catch in and bring again to the surface.

Only once before, I believe, have the Tasmanian waters been dredged to the depths reached by the Field Naturalists' party on March 26, and that was on Messrs. May and Hedley's memorable trip off Cape Pillar, about three years ago. Upon this occasion the intention was to test the range and distribution of the various species in the deepening waters, and for that reason the successive drags were tried at 40, 50, 60 fathoms, and so

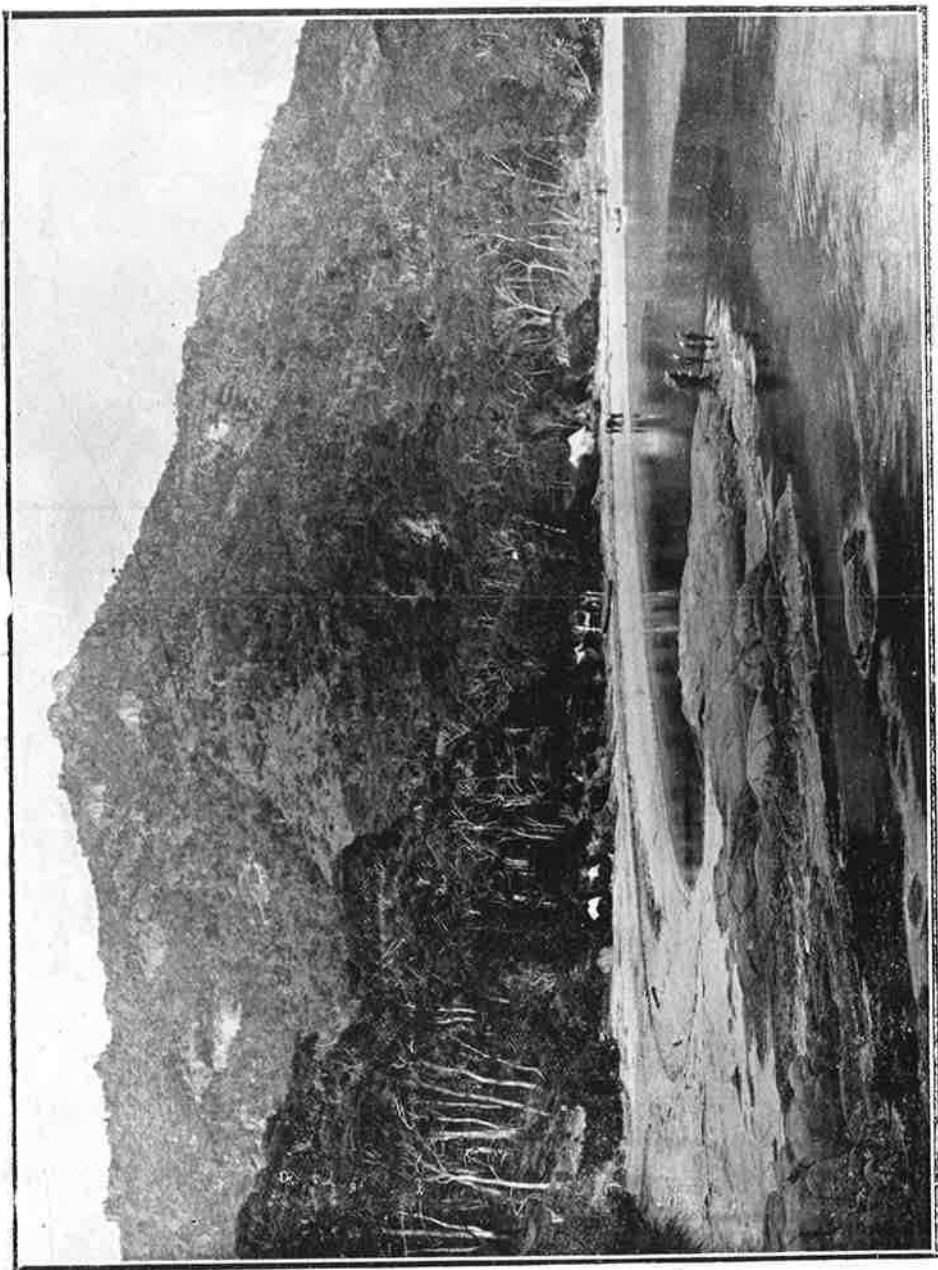
on; but one short day's work was altogether insufficient for such a task. One short drag, scooping a width less than 2 ft. wide—and that only for a short distance—at each 10 fathoms' depth, was altogether inadequate to show what was really there. Some indication of range was obtained, but we can only say "This was dredged at 40 fathoms, and no specimens obtained at 90 fathoms." But with only one drag at each depth it could not be asserted that any particular species did not extend to depths in which we got no specimens of it. If a subsidy could be obtained, a small steamer chartered, and a week devoted to systematic dredging, really useful and most interesting work could be done, and a good idea obtained of the distribution, etc., of the different species, mollusca, crustacea, and other life, off our Southern Tasmanian coast.

The bottom dragged on the 26th of March was sandy, covered with debris of broken polyzoa, but apparently not very plentifully strewn with shells, the most material being brought up from between 40 and 50 fathoms. As the sea deepened the sea-floor became a softer, less decided sand, until at 90 fathoms it was almost a muddy clay in appearance, still mixed with the same broken polyzoa and shells. Rare and interesting specimens of many deep-water mollusca were obtained—the pelagic *Heteropoda*, shells that are literally "a child of the wandering seas," owing no coastline with its restraining range of depth. One of these (*Cavolina trispinosa*) was most noticeable from its peculiar shape, having a stout spike on either side, and then tapering off to a long tail. There were large clear white Brachiopods (lamp shells), deep-water Marginellas (familiarly known to children as "wheat grains"), and a Triton, the first specimen Mr. May has dredged alive. In addition to the more rare deep-water molluscs were fine specimens of more ordinary species, turritellas, etc.; but a most noticeable feature was the prevalence of small species. Not one large or even medium-sized shell was dredged that day. The largest I remember was a dead specimen of a young volute—apparently *V. papilosa*.

The same remark applies to the crustacea. There was not a single large one taken, although the individual creatures secured may be good specimens of their particular genera; the great majority taken belong to the division Anomoura. Lobster-like Galatheida (genus *Munida*) were plentiful between 40 and 50 fathoms. Bright red Hermit crabs, with peacock blue eyes (two species of the family Pagurida) were very numerous; indeed, their number appeared to be only limited by the number of univalve shells available



VIEW OF BEACH NEAR THE CAMP.



ANOTHER VIEW OF THE BEACH.

for habitations. For every dead shell, apparently, was tenanted however unsuitable it appeared to be. Long turritellas (Cleopatra's needles) would have their small mouth filled by a crab that was quite unequal to the task of dragging such a massive home about. One small shell I have really requires a lens to show the tiny claws of the little tenant within. One Pagurid was considerably larger than the rest, for it was the proud possessor of the largest shell dredged, the afore-mentioned volute! Of the crabs (proper) only two specimens were taken—or more correctly, a small specimen of the spider crab, and the mangled remains of another, of an allied species. From 90 fathoms three sarimps were brought up, representing two genera of the family Caridea, of soft delicate texture, and looking frail little creatures to stand the pressure of between 500 and 600 feet of water!

Of the sessile-eyed Crustacea, there were many specimens of the two great tribes of the Isopoda and Amphipoda, many of the latter most noticeable from their deep crimson colour.

Conspicuous, too, amongst the objects dredged in the deep water, were a few specimens of "solitary coral" (*Flabellum Australe*). It apparently grows from a slender stem, is fan-shaped, the two sides of the fan a little apart, smooth and hard on the outside, but semi-transparent. The space between the two gaping sides, filled with thin transparent, transverse "pleats," that resemble in shape the hymenium of a mushroom. The largest obtained was a living specimen, three inches spread of fan, nearly an inch "gape," and over two inches high.

The second day's dredging (or rather the part of a day available after landing excursions) was to have been devoted to Oyster Bay. But having to go to the Schouten Passage with fishing parties, the temptation to go "outside," and try the 40-fathom ground again, was too great to be resisted. We steamed out, and had four or five drags shortly after noon. The result was scarcely what we expected. For (except in the shells) there was an unlooked for sameness, so that these collecting other forms of life added little to what was taken on the first day.

Steaming back through the Passage, a couple of drags were tried inside. This time, though, we took care to pass well beyond the granite country, and did not lower the dredges until we had on either hand the sedimentary rocks that form the west side of Schouten Island, and the opposite shore of the Peninsula. Here we felt the loss of the large dredge, lost the previous day. With it we should have secured a great haul, for the little dredge came up full. If there were not many shells, there was an abundance of other

life—crabs, sea-eggs, sea cucumbers, sea-squirts—all sorts of creatures, mixed with the rubbish, small stones, etc. There were large velvety brown crabs (*Dromidæ*, two species), some of whom, not content with their natural coat of thick, close hair, wore also a mantle of sponge, slapped to fit the crab's body, and held in position with the last pair of legs. Spider crabs (*Mainea*, three species), so loaded with weed, sponge, and sand, that, seen from above, they could scarcely be recognised as crabs. *Portunidæ*, red active fellows; hermit crabs, as on the ocean side of the Peninsula; but here, larger specimens were taken, inhabiting old whelk shells.

Nor will I omit to mention an oyster that was brought up—an oyster of truly noble proportions—which was presented to the captain, who had helped us so well, and which was (he declared) the first oyster he had ever encountered too large to be disposed of in one mouthful.

Mr. W. L. May, the well-known conchologist, has forwarded the following concise report of the mollusca taken, after the dredgings had been picked over and the shells classified:—

Dredging off Schouten Island, in 40 and 80 fathoms of water, respectively 3 and 10 miles out. 26/3/1910.

The total take of mollusca amounts to some 200 species. Of these about 60 have not previously been known in Tasmania; about half of these again have been identified as described species, leaving some 25 unidentified, most of which are probably new to science. Besides the new species, some very rare species were taken, several of which had only been previously known by one or two specimens. Amongst these, living specimens were taken of *Septa petulans* (*Triton*) and *Cymatium kampyla* (*Triton*), previously only known dead. Amongst those new to Tasmania were a fine "slit-limpet" (*Emarginula superba*), a species which is only surpassed in the genus by two or three species in the world. One specimen is larger than the type which was dredged in 300 fathoms off Sydney, and was, I believe, hitherto unique. Three species of *Triphora* lately described from off Adelaide, S.A., were taken. They are small pointed shells, usually reversed, viz., wound up in the opposite direction to most shells. The great family of *Marginellas* was strongly represented by about 20 species, several of which have not previously been seen. Tasmania is wonderfully rich in this beautiful little genus, and they occur in all depths from between tides down to 100 fathoms, some species being confined to very shallow water, others to the deeper, and some having a wide range in depth.

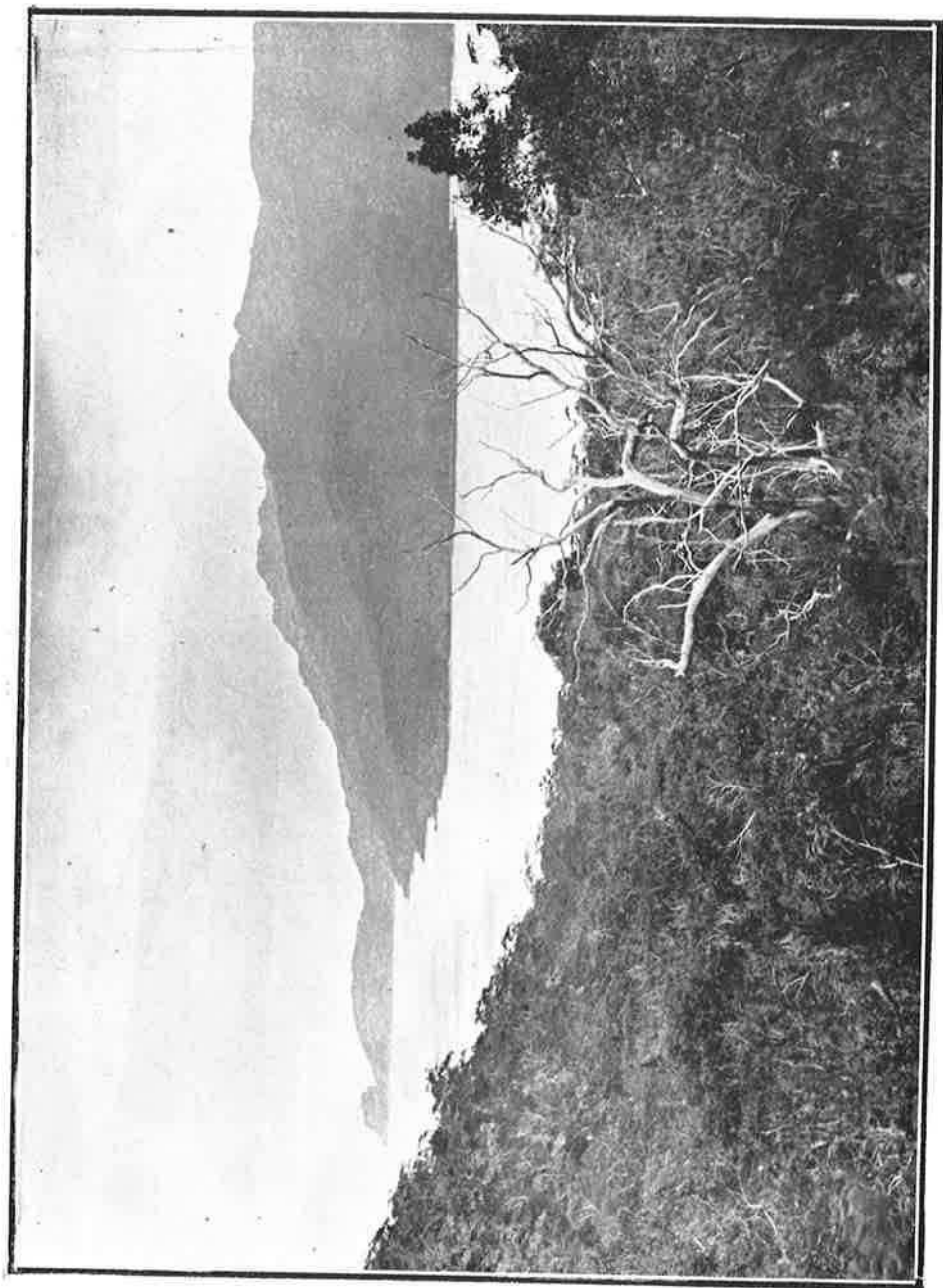
Among bivalves a very fine species of *Cuspidaria* occurred. This is a form with a long rostrum or beak, and must be one of the very finest known. So far, it is unidentified. In the Schouten Passage a number of species of *Lucina*—*L. crassilirata*—were taken. It has strong concentric ridges, crossed in the interstices by distinct liriae.

Six species of Brachiopods (lamp shells) were taken, two of them new to us. One is a beautiful species, thin and almost transparent. It is *Terebratula wyvillei*, and the type was dredged by the Challenger off Valparaiso in over 1,000 fathoms. It has lately been taken in South Australia.

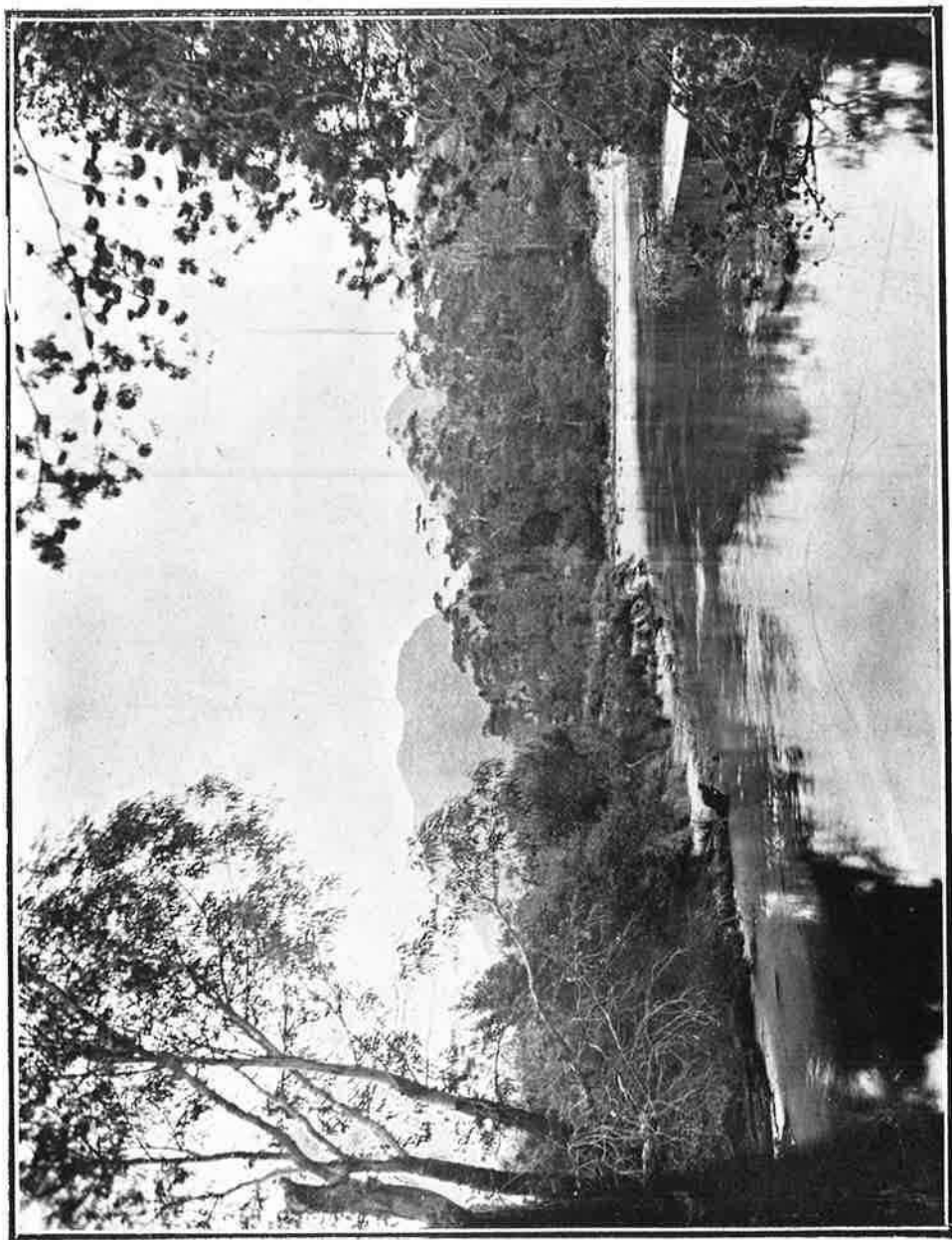
Of Pteropods—pelagic mollusca—about six or seven species occurred, being the dead shells that had sunk to the sea floor.

Two of these have not previously been recorded for Tasmania; in fact, until recent dredging off Cape Pillar the whole order was unknown here. These thin, glassy shells take very unusual forms, some being like lamp glasses, while others have three sharp spines, giving them a triangular form.

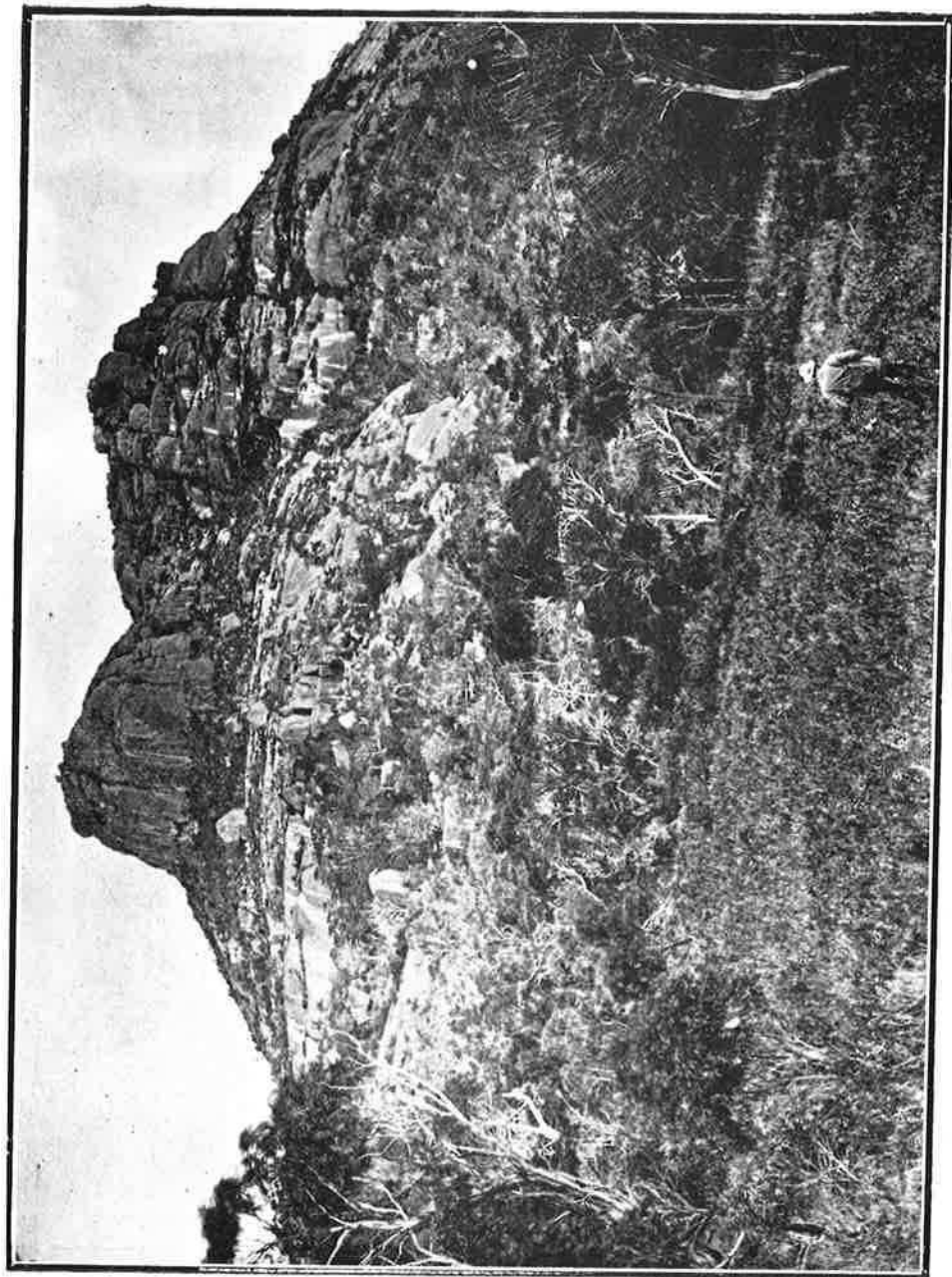
These researches go to prove more and more the wide distribution of species on our Australian "continental shelf," which extends from north of Sydney right round southern Australia, including Tasmania. This shelf is bounded by the 100 fathom line, after which usually the descent is rapid to very great depths. Many of the species taken have also been dredged in similar depths by Dr. Verco off Adelaide, and Charles Hedley off Sydney. Of course, a percentage will be found peculiar to each distinct locality.



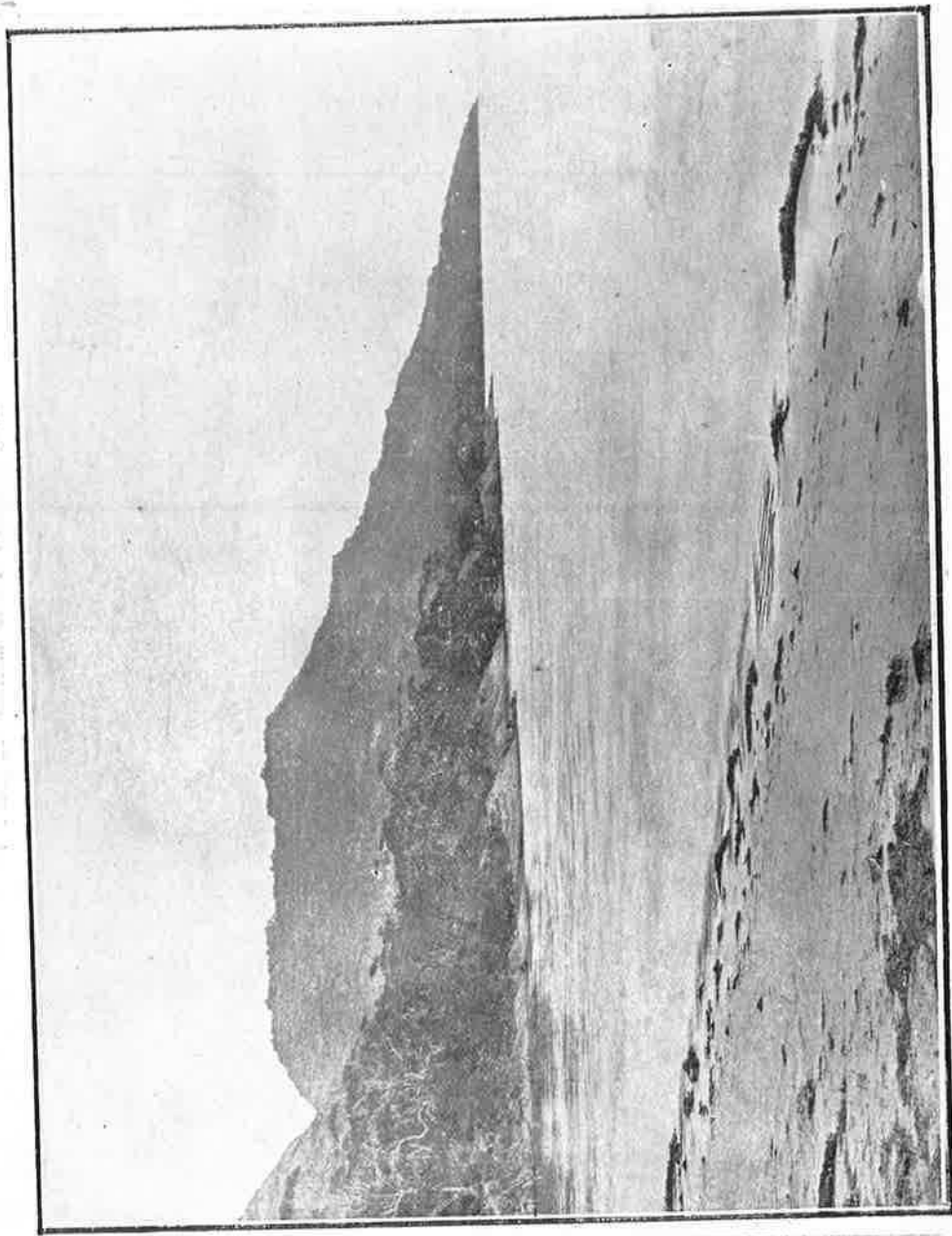
THE ENTRANCE TO WINEGLASS BAY.



A CREEK AT WINEGLASS BAY.



A RUGGED CREST, NEAR SLEEPY BAY.



MOUNT HAZARD FROM COLE'S BAY.