

The Cruise of the Avocet



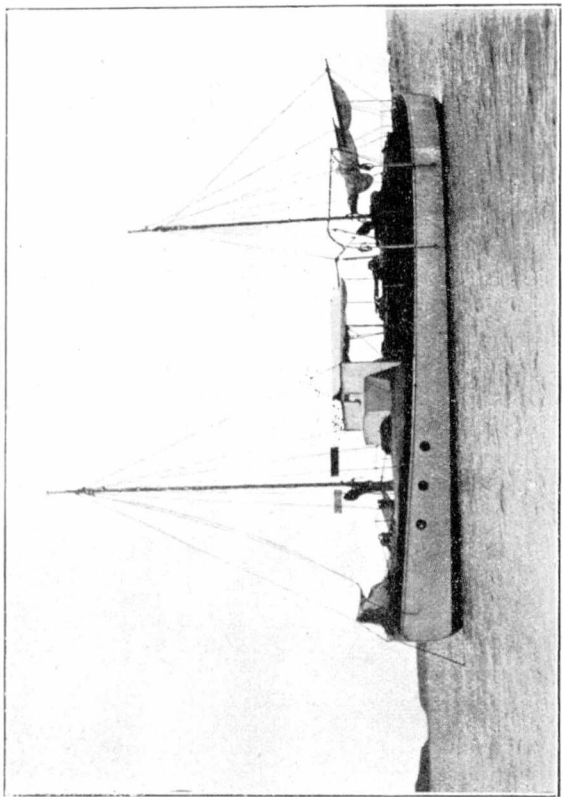
In Search of Skuas
and other Things.

By Capt. S. A. White,
M.B.O.U., R.A.O.U.

Reprinted from The Register.



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Few people in Adelaide know when they are frizzling under a scorching sun by day and passing sleepless nights owing to an oppressive atmosphere that the weather along our ocean seabeach and among the islands at the entrance to the St. Vincent and Spencer's Gulfs is perfect, and that one can sleep between blankets every night. This was well illustrated in January, 1916, when an old medical friend and the writer were most kindly invited by the Messrs. Rymill to be their guests during a cruise they were taking in their beautiful little motor yacht, the Avocet. The mercury

rose in the shade to 106 deg. in the city, but with us the weather was most enjoyable with the exception of two rather strong blows.

—A Start Is Made.—

Saturday afternoon, January 1, last, my kind friends called for me on their way over to Port Adelaide, and we were not long motoring over via the Military road to the Royal Yacht Squadron's headquarters, where we boarded the *Avocet* as she lay at her moorings, and we found the skipper, Mr. A. G. Rymill, who had preceded us by several hours, in company with Mr. Acraman. They had the trim little vessel ready to put out to sea, so it was not long before the moorings were slipped, and we stood down the Port River. It was one of those quiet summer evenings when the glassy surface of the water reflected all the tall spars of the shipping and the chimney stacks along the banks; soon we were passing the low banks covered in a dense mass of mangrove trees. The mangrove is too often looked upon as a dark foreboding, good-for-nothing plant, while really it is an elegant tree or shrub, the dense foliage resembling very much that of the orange, and when in flower is still more beautiful. The seed or fruit is one of those wonderful contrivances of Nature to perpetuate and spread the species, for it is so constructed that it not only floats bouyant upon the water (into which it falls from the parent tree when ripe), but retains its vitality for a great length of time, while being buffeted about by wind and tide till a suitable resting place is found, where it takes root and grows up

in a remarkably short space of time to add to the beauty of the scene. I should like those who say hard words about the mangrove to pause for a moment and think what those low muddy banks of our river would be like if not covered in this vegetation.

—Days of Long Ago.—

This thick mass of foliage, which we see on our way up and down the river, shelters much bird life, but if you do not know how and where to look for it you may say there is little or nothing there. Sit quietly (if mosquitoes will allow you) on some twisted limb or branch, not a sound is heard, not a leaf moves, it is as still as the grave, but you will not have long to wait, if you keep still, for soon a small brown bird moves out of its hiding; it sees you sitting there and makes quite a fuss by hopping around in an excited manner, giving forth soft but oft repeated chitting notes of alarm, and soon two or three more of its kind are attracted to the spot. Break a twig or move your body and the little visitors are gone. They are the allied scrub wrens, the type specimen having been collected at this very spot and named by the Father of Australian Ornithology, "John Gould," in 1847. Many years ago, it must have been in '78 or '79, I accompanied my father upon a trip down the Port River in search of specimens of three or four species of cormorants (commonly called shags), and I distinctly remember he was able to secure specimens of all species for his collection, because they were numerous then. Now they have been driven up the coast or exterminated. This has been brought about partly by the in-

creased shipping and by the gun, the the latter used by people who have the mistaken idea that the birds exterminate the fish, but they must think it strange now that the ormorants are banished the fish do not overstock the river.

—Research Work is Commenced.—

As the river mouth was approached we passed a fishing or pleasure boat here and there, idly floating upon a painted sea. All was peace and quietude, the sun was setting in glorious radiance, and the fiery red of old Sol's surroundings told the town dwellers without a doubt of heat to follow on the morrow. Having reached the Outer Harbour, the anchor was dropped just out of the channel on the breakwater side. Before dark a few cormorants flew by the yacht; they were passing in from their feeding ground to the rookery in the mangroves, and were all of one species, i.e., the pied cormorant. Several specimens were secured, and our research work began. The temperatures of the birds were taken, which seemed to average about 100 deg. F.; then measurements were dealt with and it was found that these fine birds had an average spread of wing of about 4 ft., and that they weighed up to 5½ lb. The stomach contents were examined, revealing only weedfish, no marketable fish being found.

—The Objects of the Trip.—

The objects of the trip were to land on The Pages, which are mere rocks situated at the entrance of Backstairs Passage—there is no record of any ornithologist having landed there—to secure specimens of a skua gull, supposed to be the arctic skua; and to secure specimens of a white-

breasted petrel which had been seen by Dr. Morgan and myself on several occasions, but neither of us could identify it. How many of these objects were achieved this narrative will explain. The party consisted of Messrs. H. Rymill, sen., A. G. and E. S. Rymill, who practically placed their motor yacht *Avocet* at the disposal of ornithological research. The guests were Mr. G. Acraman, my old medical friend, and the writer.

—Trip Down the Gulf.—

At an early hour next morning the anchor was weighed, and we started on the cruise. From an early hour it could be seen that the heat would be intense on land that day, and as we passed the watering places between the Outer Harbour and Marino, a shimmering heat haze was settling down. Coasting along fairly closely inshore, many familiar landmarks were picked out; and the morning passed pleasantly. The sea was calm and the atmosphere warm enough to be pleasant. There was a remarkable number of welcome swallows which were hawking after insects, the latter being blown out by a light land breeze. A few crested terns were seen, but the absence of silver gulls was remarkable, and it was thought that they were busy with nesting duties. During the afternoon we rounded Rapid Head, and Cape Jervis came in sight. This projecting piece of land is the extreme southern end of the Mount Lofty Ranges, and was named by Capt. Matthew Flinders, R.N., on March 23, 1802, but Peron (who accompanied Baudin) came after Flinders, ignored the English name, and called it *Fleurieu Peninsula*.

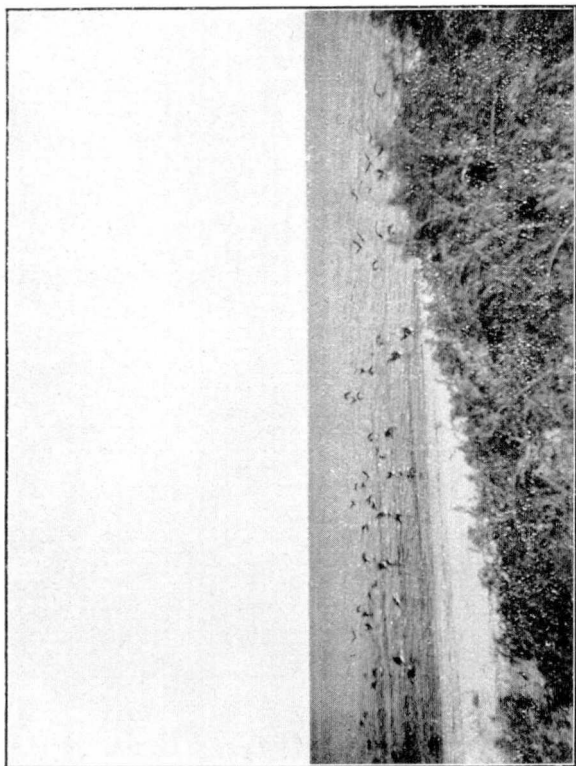
About 1871 a lighthouse was built on Cape Jervis, which is very necessary to keep vessels passing through the narrow strait (between the mainland and Kangaroo Island) known as Backstairs Passage from running upon a dangerous reef that lies at right angles to the coast.

—Native Folklore.—

One of those old legends of the natives (it is regrettable to think there are so few recorded) appeared in "The South Australian Magazine." "The Legends of Ooroondooie" is connected with Cape Jervis and, it appears that a spirit called Ooroondooie, after making the country to the east, founded the Murray or eastern tribes first, then the tribes at the Murray mouth, giving to this people all they possessed of the knowledge of life, and instructed them in mysteries and strange customs, to be passed on from generation to generation. The great spirit then entered the waters at Cape Jervis, and swam off to make other lands. Two of his lubras, or wives followed him but were drowned and turned into stone, and are now the rocks we call "The Pages." The spirit Ooroondooie then made Kangaroo Island, and is still going towards the setting sun, making new lands and people as he goes. This is one of those interesting legends which the blacks believe in, and it is a pity we did not learn more of them, for the natives are now wiped out, and their fascinating folklore with them.

—A Strong Blow.—

To continue with the cruise. As soon as we cleared the light the weather changed, and we ran into a strong S. E. blow. All hope of landing on The Pages had to



FLIGHT OF CORMORANTS.

be abandoned, and a course was now steered for Kingscote. When crossing the passage we experienced a heavy beam sea, making our little craft bob about somewhat like a cork. When half way over, a small flock of white-breasted petrels was sighted, but owing to the weather conditions, it was impossible to make the attempt to secure specimens, and it must be admitted that the writer had lost a great deal of interest in ornithological matters owing to the troubled state of the waters. We had a dog on board, and when the weather changed he was placed in one of the yacht's boats on the davits, poor animal. When he looked out upon the angry sea a look of fear came into his eyes, but very soon he was in such a helpless state that there was no fear left, and Mark Twain's remarks upon the bad sailor came into my mind; for at first the poor dog was in fear of his life, but later he would have given it to be out of his misery. I have often heard the seafaring man say he would not send a dog to sea, and after what the writer saw and felt that day he is of the same opinion, for he is quite sure he felt as bad, and would believe any one who told him he looked a great deal worse.

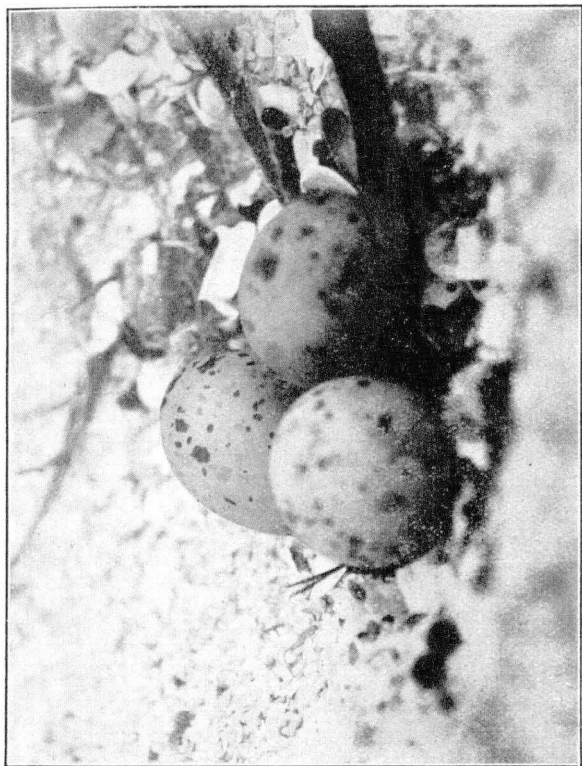
—Beatrice Spit.—

Late in the afternoon our little craft reached calmer waters inside the shoal known as Beatrice Spit. From where we dropped anchor the town of Kingscote was plainly seen. This little town is connected with the earliest history of South Australia, and many a visitor arrives and departs without knowing that Kingscote was considered a place of some importance in 1838, and on May 24 of that year boat races were held in the bay, vessels in the har-

bour were decorated, and a royal salute of 24 guns was fired, it being Her Majesty's birthday. History tells us that some of the earliest settlers arrived in the Cygnet, September, 1836, but there had been sealers and others residing on Kangaroo Island many years previous to that. We will leave the early history of the place and come to its present state. Beatrice Spit is really a low sandbank, about three miles long and only a few inches above high water mark. Most of it is covered in stunted bushes of a salsolaceous nature.

—Beatrice Spit.—

I remember landing there in the late seventies from my father's yacht, and we could hardly place a foot between the nests and eggs and young. Then a few years ago I visited it again, and a sad sight met my eyes, for numbers of cormorants' bodies were lying about minus their heads. Some one had been killing these fine birds to sell their heads for the magnificent sum of one penny per head. I am glad to say that is all stopped now, for the spit is a sanctuary, and I believe the Government have shown wisdom in ceasing to pay bounty for destroying the cormorant, which the narrative will prove is not an injurious bird to the State. We observed many sea birds here before the darkness set in. There were penguins in their burrows under the bushes, and the fine Caspian terns were in numbers, attracting notice by their harsh cries. They can be easily distinguished by their large-pointed coralled bills; they lay from two to three heavily spotted eggs on the bare sand. The crested terns were also well represented, but they are smaller than the preceeding species, and their bills are



NEST AND EGGS OF THE CASPIAN TERN.

light yellow. The little terns were equally numerous. It is a dainty little bird, not much larger than a swallow, which it very often resembles in aerial movements. It often nests in large colonies, laying two spotted eggs in a round depression in the sand or broken sea shells. There were red-capped dotterels and two species of stints running along the sandy shore; a fine colony of cormorants of both the yellow-faced and black-faced varieties; a few swans were floating on the quiet waters of a small bay; one or two pelicans strutted down the beach and took to the water.

—The Pelicans of Yore.—

These quaint birds are of the greatest interest, and put one in mind of some of our extinct avifauna, and if we are not careful to give these wonderful birds a fair measure of protection, they will join that ever-increasing list of extinct species. How sad to think that there are few remaining of the vast hordes that once inhabited these waters; for just across Nepean Bay, from where we lay at anchor, is American River, the approach to Pelican Lagoon. Capt. Flinders (the discoverer) tells us in his journal, dated April 4, 1802, "There are four small islands in the eastern branch; one of them is moderately high and woody, the others are grassy and low, and up on two of these we found many young pelicans, unable to fly. Flocks of the old birds were sitting upon the beaches of the lagoon, and it appeared that the islands were their breeding places. Not only so, but, from the number of skeletons and bones there scattered, it would seem that they had for ages been selected for the closing scene of their existence. Certainly none more likely to be

free from disturbance of every kind could have been chosen then these islets in a hidden lagoon of an uninhabited island situated upon an unknown coast near the antipodes of Europe; nor can anything be more consonant to the feelings, if pelicans have any, than quietly to resign their breath, while surrounded by their progeny, and in the same spot where they first drew it. Alas for the pelicans! Their golden age is past, but it has much exceeded in duration that of man." The great explorer Flinders, if he were with us to-day, would indeed say "Alas" to know that holidaymakers and others have shot at, killed, and banished these fine birds from their ancient nesting place for ever.

—The Pelican Immortalized.—

It was from the above description in Matthew Flinders's journal that James Montgomery wrote his famous poem, "Pelican Island." How descriptive this wonderful poem is:—

Nature's prime favourites were the pelicans;
High-fed, long-lived, and sociable and free,
They ranged in wedded pairs, or martial bands,

Then again we have another side—

I turn'd again to look upon that isle
Whence from one pair those colonies had issued
That through these Cyclades at freedom roved,
Fish'd every stream, and fed on every shore;
When, lo! a spectacle of strange extremes
Awaken'd sweet and melancholy thoughts;
All that is helpless; beautiful, enduring,
In infancy, in prime of youth, in love,
All that is mournful in decay, old age,
And dissolution; all that awes the eye,
And chills the bosom, in the sad remains
Of poor mortality, which last awhile,
To show that life hath been, but is no longer.

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Such was the scene, the dying and the dead
 Near neighbours to the living and the unborn,
 O how much happiness was here enjoy'd!
 How little misery has been suffered here.
 Those humble pelicans had each fulfill'd
 The utmost purpose of its span of being,
 And done its duty in its narrow circle,
 As surely as the sun, in his career,
 Accomplishes the glorious end of his.

There now remains for the poet to describe the coming of ever-destructive mankind upon the scene, and the destruction and dispersal of these quaint birds from their ancient breeding spot, which will chronicle a blot upon his fellow-man.

—Bound for the Althorpes.—

Next morning a fresh breeze was blowing from the south-east as the Avocet's engines were hauling up the anchor chains with the usual clatter, and we stood out round the shoals, and along the north side of Kangaroo Island, where we found that the sea was so sheltered from the southerly wind that it was like glass. Emu Bay was passed, then Smith's Bay, and later Cape Cassini; then we bore a more northerly course, and the Kangaroo Island coastline became misty and indistinct. We had much to interest us all the time, for observations upon the sea birds were always in progress, and we kept a sharp lookout for skuas. Numbers of Australian gannets were seen, and they gave us an opportunity of admiring their great diving powers. From a great height they will close their wings and shoot "like a bolt from the blue" into the sea beneath, cleaving the water with their long, sharp bill in pursuit of the finny tribe. It was noticed that most of these birds were young, for they showed their immaturity

by the mottled plumage of the back, the adult birds having a snow-white back.

—The Little Althorpes.—

Early in the afternoon Cape Spencer and the two large granite rocks, known as the Little Althorpes, hove in sight. Our kind friends offered to land us on one of the rocks, an offer we most gladly accepted. The Avocet having been worked up closely to the most easterly of the two rocks, the anchor was let go in deep water. A heavy ground swell was sweeping in from the Southern Ocean. The dinghy, being lowered, Mr. E. S. Rymill took charge of the boat to take us off and bring the boat back to the yacht. The landing party was Mr. A. G. Rymill, my medical friend, and the writer. As we approached the rocks (upon which the swell was surging) numbers of sea lions were playing round us, and some fine old chaps came up to have a look at us within a few feet of the boat, while others were gamboling round, making a very charming and interesting sight. We had to await our opportunity when a swell came in to land upon the slippery granite rocks. The boat being let stern on, each in his turn jumped ashore, and the boat returned to the yacht. The first bird seen was a pied cormorant of the black-faced variety. Unlike their yellow-faced cousin, who prefer the salt creeks and mangroves as a habitat, these black-faced birds dwell mostly upon the rocky sea-swept coast.

—The Passion for Killing.—

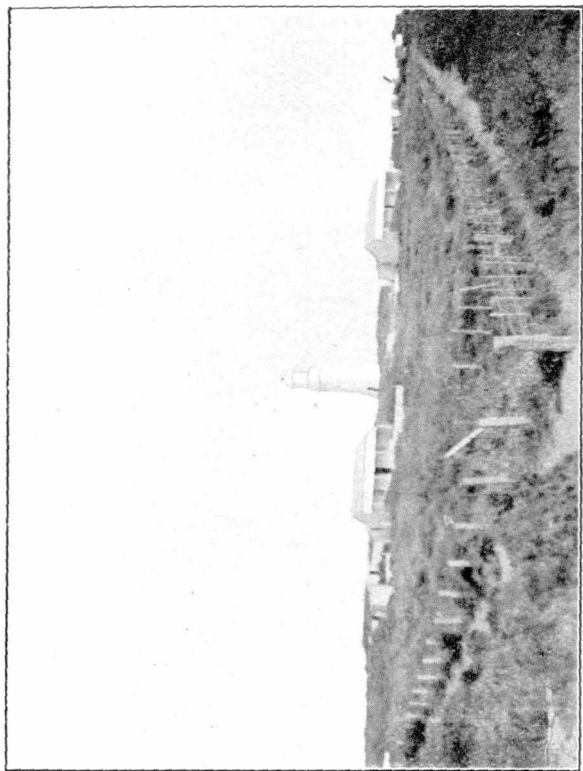
After climbing some distance up from the water among the great boulders and rocks, we came suddenly upon a sleeping female seal, and a photograph was taken of

"the sleeping beauty." The click of the shutter awoke her ladyship, and her astonishment at seeing three intruders, who had approached so noiselessly in sandshoes while she was having her sunbath or afternoon nap on the rocks, was amply expressed in her confused manner and frantic flapping over the rocks to gain the shelter of the ocean below, she little knowing that it was far from the minds of the Nature-lovers who disturbed her to injure a hair on her body, let alone attempt to take her life. Climbing still higher, the strange little rock parrot was met with. These small parrots are closely allied to the grass parrots, but are the only ones which nest among the rocks on the islands of Spencer's Gulf, laying their round white eggs upon the sand or decomposed rock in some crevice or hole. An old crow was disturbed from among the rocks, and we wondered why he should be in such an out-of-the-way place, but we were soon enlightened, for a strong odour led us to discover several carcasses of fine seals or sea lions, and again we wondered why they should have come together to die. But, upon one of our party discovering a Winchester rifle cartridge, the mystery was solved. It seems a great pity that there should be cold-blooded miscreants in these times who live for the passion of killing. How any one can shoot these harmless animals is beyond all reason. Seals are protected from July 1 to December 31 by the law, but they should be protected all the year round, for they do no harm keeping to those isolated rocks, around which the Southern Ocean rages during stormy weather. When the weather is calm enough to approach them the poor

animals present a most wonderful sight, for they are like a lot of playful dogs, and it would be a shameful calamity to cause their extermination. Little vegetation was found upon this pile of granite rocks, a stunted bush bearing berries (*Nitraria Schoebis*), another small, light flowering plant (*Sigridum foliosum*), a pretty little *Frenkenia paniflora* covered in pink blossoms, was creeping over the rocks; a few bunches of a species of saltbush (*Atriplex cinerea*) was also seen. These, with a few bunches of barley grass (*Hordeum murinum*) was the sum total of vegetation. We descended the tossing billows, and our kind friends put off for us, and we were soon on board, with anchor weighed, and standing over to Althorpe Lighthouse.

—The Althorpe Light.—

After centuries of erosion and subsiding, the high piece of land upon which the lighthouse is situated became detached from the mainland, and nature seems to have provided that a part of the granite foundation should have been left protruding from the island in the forming of a reef, which in its turn protects a small cove from the westerly and south-westerly winds, and the island itself forms a break to those from the south. It was in this cove we dropped anchor in four fathoms of water over a good holding sandy bottom, with the cliff towering 300 feet above us. Soon after dropping anchor three of us landed and made a start for the top. The almost perpendicular cliff had to be climbed by means of a ladder some time back, but now a very steep and winding track is cut into the face of the rock. It took some little



ALTHORPE LIGHT-HOUSE.

time to get up, for it was a hot day, and the sun shone down with great fierceness upon the face of the cliff. We were greatly surprised to find numbers of penguins in holes and cracks in the rock nearly at the top. These seemingly awkward birds on land have to scramble down more than 250 feet of perpendicular rock to get their food in the sea below, and struggle up again before daylight in the morning. Once we gained the summit a grand view opened out before us. Cape Spencer and the coastline of the mainland could be plainly seen across Investigator Strait on the one side, while on the other the dim outline of Kangaroo Island could be seen stretching away to the east. The two little Althorpes, which we had so recently left, looked like two rocks, and small ones at that. As we looked straight down from whence we came, the Avocet seemed but a mere speck upon a shimmering sea. We now turned our attention to the island itself. A fine masonry tower upon which the light revolves stands on the south side of the island, and a number of neat keepers' cottages, workshops, &c., are clustered round, all looking very white and trim in the noonday sun.

—A Huge Mutton-bird Rookery.—

The summit of the island is one huge rookery of mutton birds or short-tailed petrels (*Neonectris tenuirostris brevicaudus*). Every foot of sandy soil was burrowed into, and every burrow contained a brooding mutton bird, sitting on her single egg; in fact, there did not seem enough house room for applicants, for many were forced to lay their eggs on the surface, under bushes, and these, of course, were not hatched, for the birds will not sit out in the open.

Looking over the island top, one would not suppose that thousands of living birds were on eggs just below the surface, until one took a step or two. Then down you go up to the knee, and as you try to extricate your leg, the other foot breaks through the thin crust, and down you go on the other side. This bird was named by Gould in 1847. One of the early records is to be found in "Flinders's Voyage," vol. I., p. 170, where he says—"A large flock of gannets was observed at daylight, and they were followed by such a number of sooty petrels as we had never seen equalled. There was a stream of them from 50 to 80 yards in depth, and 300 yards or more in breadth; the birds were not scattered, but were flying as compactly as a free movement of their wings seemed to allow; and during a full hour and a half this stream of petrels continued to pass without interruption, at a rate little inferior to the swiftness of the pigeons. On the lowest computation I think the number could not have been less than 100,000,000. Taking the stream to have been 50 yards deep by 300 in width, and that it moved at the rate of 30 miles an hour, and, allowing nine cubic yards of space to each bird, the number would amount to 151,500,000. The burrows required to lodge this quantity of birds would be 75,750,000, and allowing a square yard to each burrow, they would cover something more than $18\frac{1}{2}$ geographical square miles of ground."

—Wonders in Bird Life.—

In the month of September these birds congregate in great flocks out at sea, then they come in to their rookeries, and at



PARTY WITH LIGHT-HOUSE KEEPER ON EXTREME RIGHT.

night time, for the space of about eight days, they are busy cleaning out the burrows and forming new ones. This is done mostly by the feet, assisted by the bill; the nails upon the toes are very sharp, also the bill, and this was forcibly illustrated when we removed the old birds from their burrows for examination. When the cleaning out process is accomplished, they all go out to sea again for several weeks, but return year after year between the 19th and 25th of November. They come in just before dark, in such numbers that the sky is darkened with them; they wheel round once or twice, and then begin to alight, and then a general fight begins for possession of the burrows. The noise and scuffling are beyond description, and continue all night, but at daylight next morning the male birds take their departure. They cannot rise upon the wing from the ground, so have to run to the edge of the cliff and jump into space, and once upon the wing they are off with the fleetness of a swallow. All day not a sight of the birds is seen either there or out at sea, or of the female birds in the burrows, but just at dusk a marvellous flight of birds is seen approaching the island, and they are soon dropping upon it. Once more a great hubbub takes place as the male bird is greeted by his spouse, and then a gurgling noise is heard, as she takes the food carried to her by her devoted husband. The general fighting and squabbling ceases after a few nights, for the majority have straightened up their homes, and it is only here and there belated pairs try to take possession of some already occupied home, when they are promptly ejected by the

lawful owners; but not before a great deal of noise is made, and a lot of scuffling takes place. It is generally understood that the male bird relieves his mate at times during the task of incubation, and allows her to stretch her wings out at sea for a day now and again.

—The Young Must Shift for Themselves.—

When the young are hatched they are fed well till they become one mass of fat. When the skin is removed the body is found to be encased in one solid coating of fat like spermin, from which, most likely, they have derived the name of mutton bird. When the parent birds have fattened their offspring to the desired degree they leave them to shift for themselves, and these masses of grey soft down are forced to live upon the fat stored around them. All this time a greyish brown feather is pushing each particle of down forwards, for the down is attached to the end of the feather, and when the feather has matured the downy end drops, or is worn, off, and the bird is fully fledged, and Nature tells it that it must be off upon the wide expanse of the rolling ocean to carry out its duties in life. So, within a few days, all the birds have waddled to the edge of the cliff, and taken themselves off. At first they congregate in the vicinity of their birthplace in open formation, and it has been recorded on reliable information that a ship has sailed for 80 miles through these birds in this state. Later on they close up their ranks into a solid mass, and then depart thousands of miles to sea. So this goes on year after year, and no wonder some of the rookeries are over-populated, but these birds

will not nest on the very habitable places on the headlands of the mainland, because they know that their enemies would exterminate them, and they know their safety is assured in their rookeries, which are surrounded by water.

—Much Cruelty Enacted.—

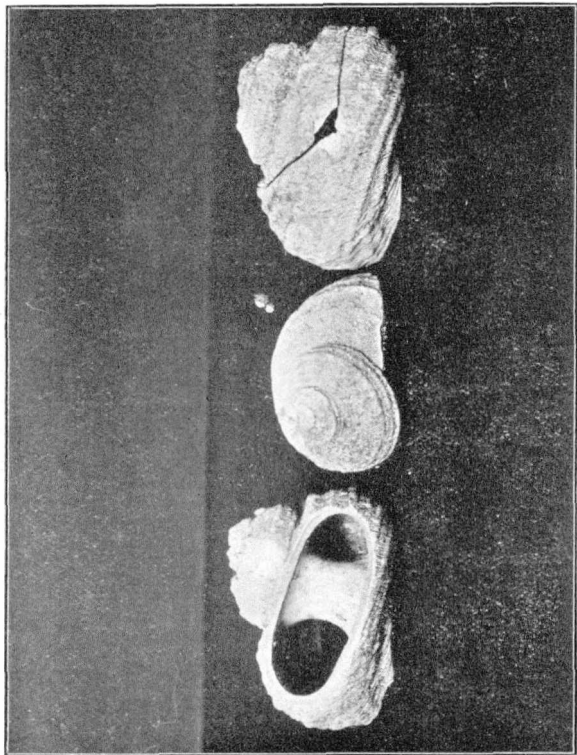
On some of the islands in Bass Strait great numbers of these birds are collected annually for their feathers and their flesh, and unfortunately much cruelty is brought about in this work. One method is to trap the birds in a trench. I have already said the birds cannot rise off the land, and must reach the edge of the island, and, in doing this every morning, they wear a little pad or track. Now, after dark, many of these tracks are blocked up, which turns the crowd into one or two roads, and at a certain distance pitfalls are dug in the track, and the birds follow one another in such dense masses, that they push one another in, and are so suffocated. This is chiefly for the feathers, for it is only the young birds which can be eaten, and then, fortunately, are not very palatable. It takes 40 birds to produce 1 lb. weight of feathers, so it means sacrificing 1,600 birds to make a feather bed, and I feel sure no conscientious person could ever rest on such a bed for five minutes, if it were known that 1,600 joyous, happy, free, and wonderful bird lives had to be taken, when many other materials could be substituted. There was one thing we were glad to see, and that was the birds upon this island were practically undisturbed, and may this state of affairs always remain so!

—Petrels Have Their Temperatures Taken.—

In spite of much biting and scratching the mutton birds were taken from their burrows for the doctor to register their temperatures, and it was found that the temperatures of their sitting birds ranged from 100 deg. F. to 103 deg. F. As each bird's temperature was taken she was placed back upon her single egg, after notes were made of eyes, legs, bill, &c. We were shown over the light by the relieving head keeper (Mr. McLean), and everything was kindly explained. After this we descended the cliffs of the south side of the island, and visited a large cave, in which the water was continually dropping through the roof, forming large stalactites. We found that penguins by some means or other had found their way into this cave up the perpendicular cliff from the sea below. Retracing our steps we were invited to have a cup of tea with Mr. and Mrs. McLean, which was very welcome after our scramble up the rocks; then we went on board, and late in the afternoon stood over to the mainland, steaming along the coast to the north. The remains of the wrecked Ethel, a barque which was driven ashore during a big blow, were plainly seen. Unfortunately the driving ashore of this ship caused loss of life. Having to dodge round several dangerous reefs it was nearly dark when we entered a bold opening between two islands, and found we were in an almost land-locked harbour called Pondalowie Bay.

—Pondalowie Bay.—

This snug little harbour was well known to our yachting friends, and it was not long before they picked up their anchor.



BROKEN "WARRENER" SHELLS (*Turbostannius*).

rage in two fathoms over a sandy bottom. It was too late to land, and most of the evening was taken up with curing specimens. After breakfast next morning three of us landed on the mainland, and crossed the sand dunes, which were covered in thick bush, the home of scrub wrens and superb warblers. Coming out upon an extensive flat well-wooded with shea-oak and tea-tree, we followed it up to the north, and around a small waterhole found unmistakable tracks and signs of emus. Brush bronzewing pigeons (*Cosmopelia elegans neglecta*) were plentiful. A crow-shrike flew out of the thick tea-tree calling loudly, but it was not ascertained to which species it belonged. Bitter birds (*Bulweria torquatus ethalae*) were emitting loud cries in the scrub, and so also was the crested bell bird (*Oreocera cristata clelandi*). The beautiful liquid call of the harmonious shrike thrush came long and clear from the dense shade of the tea-tree scrub. On our way back on board for the mid-day meal we saw hooded robins, wood swallows, wattle birds, silver eyes, and many others.

—The Islands at Pondalowic.—

Our friends landed my medical friend and me upon one of the islands at the entrance to the bay. The weather was warm on shore, and we had a hot trudge; still, we explored it all over. We found an old eagle's nest on the weather side, and there were numbers of large shells known as "warraners," or the remains of them, scattered round. It is supposed that the Pacific gulls take these large shells off the reefs at low tide, and carry them high over the rocky ledges of the island, and let them fall and smash. A

Caspian tern or two were calling loudly overhead. Only one land bird (the little grass bird) was seen, and it was far too quick to see what sub-species it belonged to. Our friends, who were fishing in the bay saw that we had finished our work on that island, came for us in the ship's boat and took us over to the other island at the entrance, "Goat Island," landing us on a few yards of sand at the foot of the cliffs. We now started to make our way to the top, which was found to be a difficult matter, owing to the steepness of the rocky face. Scrambling over some large boulders near the water, we disturbed a landrail (*Hypotaenidia philippensis australis*), a strange place for this bird, as it is mostly seen in the rank vegetation of marshy places. A low bush of small species covered the top of the island, mostly of a saline nature, the largest shrub being a dwarf Eucalyptus (*E. hoensofolia*), and a strange dark leaved bush (*Logania crassifolia*), the leaves being a shiny olive green on the top surface, and rough and brown underneath.

—The White-bellied Sea Eagle.—

A large nest of the white-bellied sea eagle (*Circus leucogaster*) was discovered upon a ledge of rock near the top. The nest was a large structure of sticks, and sitting on the edge of it was a full-fledged young one, which was almost identical in colour with the wedge-tailed eagle. This was only its first year's plumage, the adult bird having a snow-white breast and neck and head, and greyish brown wings. At one time nearly every island had its pair of birds. Their nests are large structures in some instances, fresh sticks and lining

being added each year, till over 6 ft. high, and are generally placed on some promontory or isolated rock. This fine sea eagle is widely distributed, being found in India, Ceylon, Malay States, Australia, and Tasmania. During a visit to the Capricorn Island, off the Queensland coast, a pair was found on each of the islands. These islands are low ones, and the birds nest in the pisonia trees up to 50 ft. from the ground. Their chief food on the Queensland coast appeared to be sea snakes, and the old birds brought numbers to their young each day while we were there. The food of these fine birds, located off our coastline, seem to be penguins, petrels, and marine life floating upon the surface or thrown up by the sea. Having descended to the boat, we pushed her off, and with the aid of the motor engine to propel us went round the island by the seaward side. The wind had freshened considerably, and when we reached the western side a wonderful and grand scene presented itself. Huge ocean rollers came in from the Southern Ocean, passing under our tiny boat, sometimes heaving us away up on their rounded top and at others all was blotted out from view as we glided into the valley below. As these great seas approached the rocky bottom they began to curl, and the light in the west shone through their wonderful green tops, then in a moment they had dashed with a report like thunder upon the rockbound coast of the island, sending the spray far up into the air, and although we were some distance off we felt the effect.

—We Meet a Blow.—

Next morning the anchor was heaved, and at an early hour the Avocet was pass-

ing out through the entrance to Pondalowie Bay, on her course for Wedge Island. The sky was overcast and angry, the sea dark and sullen, and dotted over with white horses. Very soon our little ship was pitching into a head sea, which was becoming bigger the further we went, for the wind was rising, and before noon a heavy blow was lashing the short seas into foam. The wind howled and wailed dismally through the rigging. The poor old dog began to wonder what was coming next, and dismay was written on his face. Most likely he had forgotten his first day at sea, because he had a good run on shore at the Althorpe Light, and at Pondalowie Bay. Now that quick and alert look faded from his eyes, and he parted with his breakfast, and gave up all interest in the ship's steward as he passed from the safe on deck to his galley below. My sympathy was with my four-footed friend, for we were "comrades in distress." Turning from this unhappy sight, my eyes fell upon our skipper at the wheel. There he stood, barefooted, on the wet deck, an oilskin coat buttoned tightly round his neck, the spray dripping off a face which was beaming with delight. He was fairly enjoying it, watching every sea as it came rolling under or by us, and when a larger sea than usual came tumbling in, as if it would engulf our little ship, the man at the wheel would bring his boat up to it, and over we would ride, with nothing more than a shower of spray on board, or a surge of green water through the scuppers, as she heeled over to it. With a glance up at the sails, or a word to his brother in the engine room, it could be seen that our sailor friend was in his element, and above the whistling of

the wind and the throbbing of the engines came to the prostrate form of the "Land-lubber":—

Oh, for a soft and a gentle wind,
I heard some one cry;

(Then my friend's wet face was turned towards me, wreathed in smiles.)

But give to me the swelling breeze,

And white waves running high, running high,
my lads,

The good ship tight and free,

The world of water is our home,
And merry men are we.

I am afraid our good friend did not see the slightest agreement with the last part of his song in the writer's sallow visage. How soon we forget such misery when it is past! And there was so much of interest, so much work to do ahead of us, that now the stormy crossing is an event of the past.

Few birds were seen crossing over to Wedge Island, but those visible were the species generally sighted in rough and stormy weather. First there was the Australian gannet, a large bird with long and pointed bill, the black markings in the wings showing up strongly upon an otherwise white plumage, only the top of the head having a yellowish-brown colouration. Birds of this family, called "boobies," were known to one of the earliest naturalists named Gaius Plinius Secundus, commonly known as Pliny the Elder, who lived about the year A.D. 79; since then much has been written about these birds. They are generally called boobies by the sailors, and there are few who know that this name has been derived from the Portuguese bobo—a fool; and since then the bird has been called by this name because

of its foolish habit of alighting upon ships and allowing itself to be taken by hand. John Gould gives a good illustration of this in the "Handbook to the Birds of Australia," where he says, speaking of his visit to Actaeon Island in 1839, "And the Australian gannets—'boobies,' as they are called; the present appear to be the booby 'par excellence,' as evidenced by the manner in which I captured the specimens in my collection.

—Capturing the Booby.—

"Observing about 50 fine adult birds reposing on the flat top of a low rock on one of the Actaeons, I directed my boatmen to row cautiously that I might endeavour to get a shot at them; I was soon not only within range, but too near to use my large duck gun, loaded as it was with large shot, I determined, therefore to shoot them on the wing as they flew from their resting place. Judge of my surprise when I found that neither the near approach of the boat nor our speaking to each other startled them in the least. Taking one of the men with me, I stepped on shore and approached the motley assembly, which was still sitting in close array on the rock, and which did at length exhibit some degree of surprise and uneasiness at the intrusion, but even then was so little disturbed that we succeeded in capturing five fine birds with the hand before the remainder had shuffled off to the ledge of rock and taken wing. Had this occurred at a breeding-place it would not have excited my astonishment, for I was aware that other species would allow themselves to be so taken at that period; but I did not expect that the present species would admit of being captured while merely at

rest. This apparent want of caution or stupidity may in all probability be attributed to the fact that their haunts on these islands had rarely been intruded upon; boats the natives of the southern parts of Tasmanian never possessed, and the visits of civilized man must have been few and far between."

—The Nesting Place of the Gannet.—

The only known nesting place of the Australian gannet is on Cat Island in Bass Straits, and has been very wisely gazetted a sanctuary. During a recent visit made to this island by the writer some few years back, it was found that Cat Island, a flat-topped island over an acre in extent, was taken up by these nesting birds, sitting just out of the reach of the nearest neighbour's bill, the single egg was placed upon a raised heap, and possessed a white chalky shell like the cormorant's. The young are first covered in a white down, their brown feathers appear, and the adult plumage is not attained till the third year. After the nesting season both young and parent birds scatter over the sea, in some instances very far from land; their food is captured by plunging into the water for it. Flying high over the water, the bird closes its wings and makes a perpendicular dive, the velocity of which must be seen to be appreciated. Into the waves it goes and comes up after capturing its prey, shakes the water off, and mounts again to its lofty point of observation. The gannet is webfooted, and possesses closed nostrils.

--Mother Carey's Chickens.—

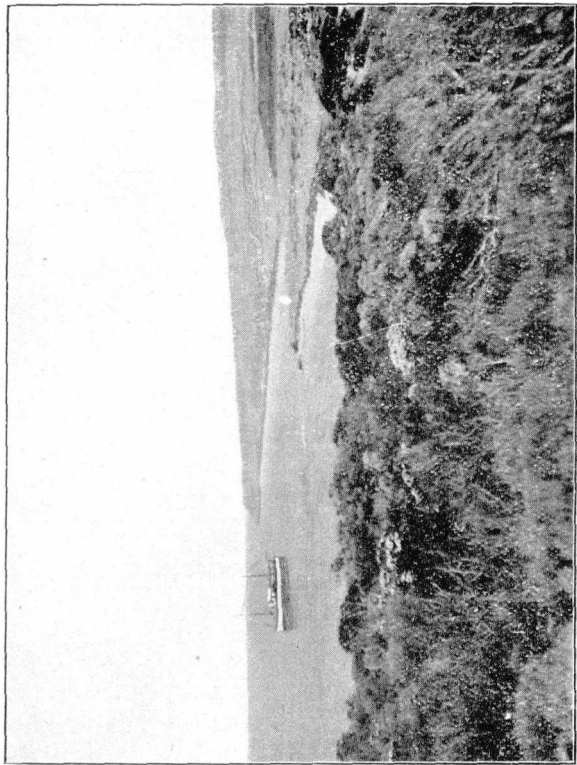
During the heavy blow we experienced going over to Wedge Island another bird

attracted our attention, and that was the graceful and swallow-like bird "the white-faced storm petrel" (*Pelagodroma marina howei*). It tripped and skimmed over the raging sea in a wonderful manner. These dainty little birds are known to the sailor as 'Mother Carey's chickens,' and are found at great distances out to sea. Like all other members of the genus, they repair at nesting time to the islands off the Australian coastline, make small burrows (for all the world like rat holes) in the sandy soil, when they lay one white egg. They are never seen near their nesting site during the day time, for one bird keeps to the burrow underground in the act of incubation, and the other keeps out to sea till darkness comes on, then comes in to feed its mate or young, and leaves again next morning by daylight. In addition to these birds mentioned, a few short-tailed petrels or mutton birds were seen skimming over the troubled waters on long and tapering wings.

—Wedge Island.—

Arriving off the north coast of Wedge Island we found that the wind was blowing strongly into the only anchorage, so we fetched up under the lee of Gambier Island, only a mile away, and dropped anchor over a rocky bottom. The big sea swell was surging in upon the rocks within a cable's length or so of us, for we had to take up a berth close in to get any shelter. Fishing lines were soon over the side, and some fine sport followed. Two or three swallowtail were hauled on board at a time, as fast as the hooks could be baited. This fish is splendid eating and of a wonderful colouration, being a bright scarlet when taken from the water, and is

NORTH COAST OF WEDGE ISLAND.



somewhat the shape of a schnapper. Many species of rock cod were also hooked, and these fish are also beautifully coloured, the brilliant blues, greens, yellow, and reds all harmonizing most effectively. All at once the wind backed round, so the anchor had to be raised quickly, for we were on a lee shore. Steaming over to Wedge Island the anchor was dropped again in three fathoms over a sandy bottom. A big swell swept into the bay, which rolled the Avocet about a lot. The skipper and the writer landed, the former to renew and the latter to make the acquaintance of the Messrs. Golley Brothers, the owners of the island. After a walk inland for about half a mile, accompanied by Messrs. A and W. J. Galley, we returned to the beach and pulled off to the yacht.

—Early History.—

Upon February 24, 1802, Capt. Matthew Flinders, R.N., took observations from high ground near Memory Cove, and tells us:—"I obtained bearings of Cape Wiles, the furthest extremity of Thistle Island, and of a group of four islands and two rocks, five leagues beyond it, to the east-south-east. The largest of these was named Wedge Island, from its shape, and the group Gambier Isles, in honour of the worthy admiral, who had a seat at the Admiralty Board when the Investigator was ordered to be fitted." Wedge Island is about three miles long by about a mile wide, and contains about 2,400 acres. It is a very picturesque island, rising some 700 ft. from the sea on the south, and gently sloping towards the north until the land is only 20 or 30 ft. above the water. In the spring it is covered with a wealth of green grass, broken here and there by

patches of dark sheaoak and shapely tea-trees. The owners grow a good many acres of barley, which in good seasons yields well. The formation of this island seems similar to others in the gulf, being a soft calciferous sandstone resting on a bed of old rock, and, only for the latter, the action of the sea would have worn the island away, for the sandstone is easily worked into by the weather, and in many cases caves are formed in this manner. I have often thought what a priceless island this would be if it were only located, say, a mile off Glenelg, and what a magnificent boat harbour it would form. The ocean has hollowed out St. Vincent's Gulf only too well since the continental shelf was raised above the sea, and restored both gulfs to dry land, but the restless ocean has again claimed her own by hollowing out the gulfs once more, down to the granite bed, and the ocean's "helpmeets," wind and rain, are still carrying on their work of denudation.

—We Explore the Island.—

After breakfast on January 6, 1916, three of us landed, when we were joined by Mr. A. Golley, and set out for the south-east end of the island. After leaving the boat we passed over open but gently rising ground covered with a mass of dry grass, wild oats, clover, barley grass, &c., then we entered quite a thick scrub composed of sheaoak (*Casuarina stricta*) and teatree, the latter in some places being very thick. We had no sooner got well into this cover than we were startled by the appearance of a number of large birds, which ran quickly through the undergrowth to the first clear spot, when they took to flight. They proved to



MESSRS. GOLLEY BROS. UNDER SHEOAK.

be the stone plover, commonly called the curlew. We were delighted to see such numbers on the island, and sincerely hoped they would always remain there, because they are becoming exterminated on the mainland by the fox, the eggs and young being destroyed by that imported pest. Hopping about in the denser part of the scrub, hardly uttering a sound, were a few small brown birds, known as scrub wrens, or *Sericornis*. Upon examination I have found that this bird is a distinct variation to those found upon Yorke's Peninsula or Eyre's Peninsula. In describing it as new to science, it has given me the greatest pleasure to name it in honour of my very kind friends, the owners of the Avocet, both father and sons, for it is only a fitting mark of appreciation for the great assistance the Messrs. Rymill have rendered science by placing the islands within the reach of their ornithological friends.

—Much Birdlife is Seen.—

Leaving the patch of scrub behind us we again passed over an open stretch of country covered in barley stubble, and later in dry grass. The ascent was fairly steep till we reached a small plateau, after which we descended into a depression between sand ridges, and this country was covered in low scrub or bushes, the principal being *myaporum*. Here we met with the little scrub wrens again. There were also great numbers of silver-eyes (*Zosterops lateralis westernensis*) flying from bush to bush as we advanced, calling to one another in their plaintive little voices. These dainty birds are great island lovers, and have spread over all the islands around the Australian coastline, and to

many that are a great distance from the mainland. It is a well-established fact that it is during comparatively recent times that these birds have found their way into New Zealand, and were first noticed in the South Island, but soon afterwards appeared in the North Island, where the Maoris gave them a name signifying stranger. Sir W. Buller, in his ornithological works, contends that this bird is a native of a small area of the west end of South Island, but evidence is too strong against this, and flocks of several hundreds of birds have been met with far out at sea, as if they were in search of new lands to colonize. The silver-eye is thought much of in New Zealand, where they are called "Blightbirds" among the colonists, on account of the great quantity of blight they destroy. Closely allied species of this genus are to be found in South Africa and India. While making our way through the bush we startled a young narrow-billed bronze cuckoo.

—The Cuckoo.—

The family of birds in the old world, from which these birds derived their name, is a very ancient one, and there has been more written, scientifically and otherwise, about these birds than any other, and the poets have composed more verses to these birds; in fact, a kind of mystery shrouded for a time in those earlier days, for William Wordsworth said, "To the Cuckoo":—

Thrice welcome, darling of the spring,

Even yet thou art to me

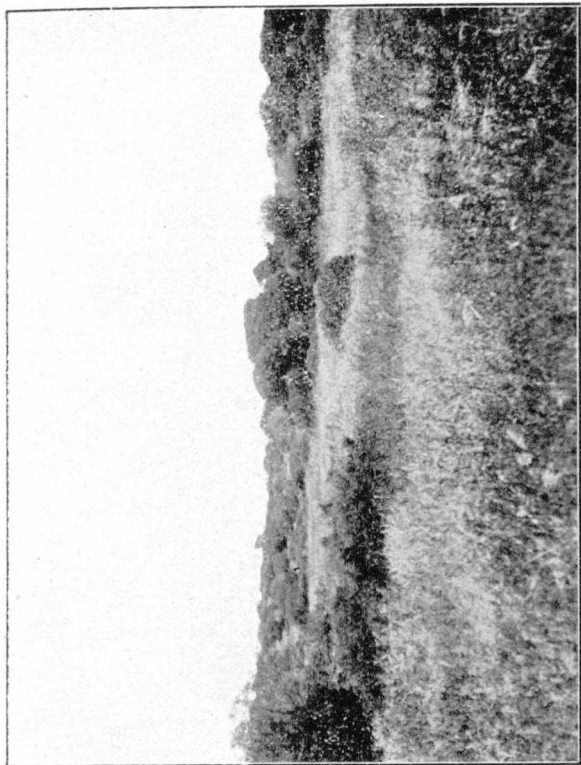
No bird, but an invisible thing,

A voice, a mystery.

The same who in my schoolboy days

I listened to; that cry

VEGETATION ON WEDGE ISLAND.



Which made me look a thousand ways,
In bush, in tree, and sky.

And I can listen to thee yet;
Can lie upon the plain
And listen, till I do beget
That golden time again.

Our Australian representatives have not much in common with the old-world birds, with the exception of their parasitic habits, habits which have puzzled Nature students since the time of Pliny, 70 A.D. The vivid question was how did a cuckoo place its egg in the nest of another bird, into which it had no chance of getting on account of its size? Sometimes the nests are domed, and the entrances tiny, and at the side. From long observation it has been proved without doubt that the bird lays her egg upon the ground, then takes it up in her bill and deposits it in the nest of the foster parents.

—No More Cares.—

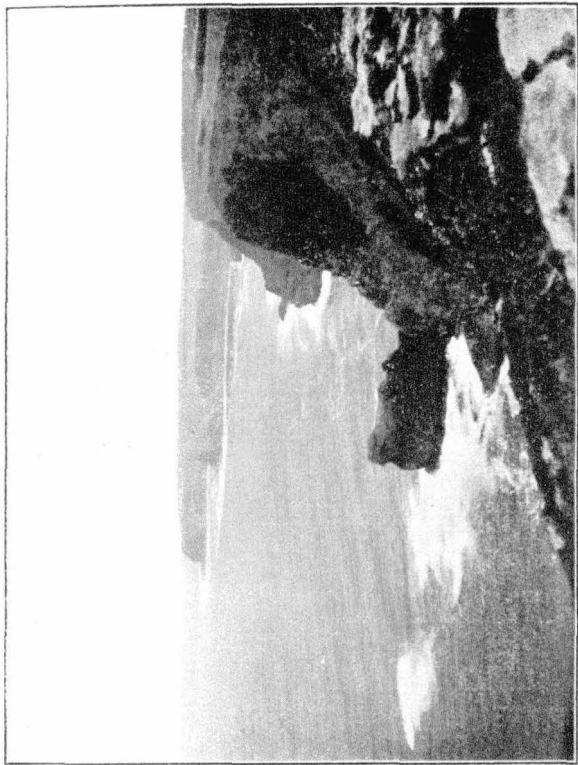
The cuckoo then flies off, and troubles no more about her progeny. The foster mother (very often a ridiculously small one) hatches out the egg. The young cuckoo, being a much more robust chick, sets up a battle royal with the rightful owners of the nest, and if it does not succeed in starving the other young birds has been seen to get them upon its back, stand up, and deliberately pitch them over the nest, thus securing all the food brought by the foster parents. After about another mile of this country the land rose more abruptly, the sand disappeared, leaving a travertine crust upon which there was little or no vegetation. A few lizards of two or three species were taken from under stones. A brown hawk (*Feracidea*

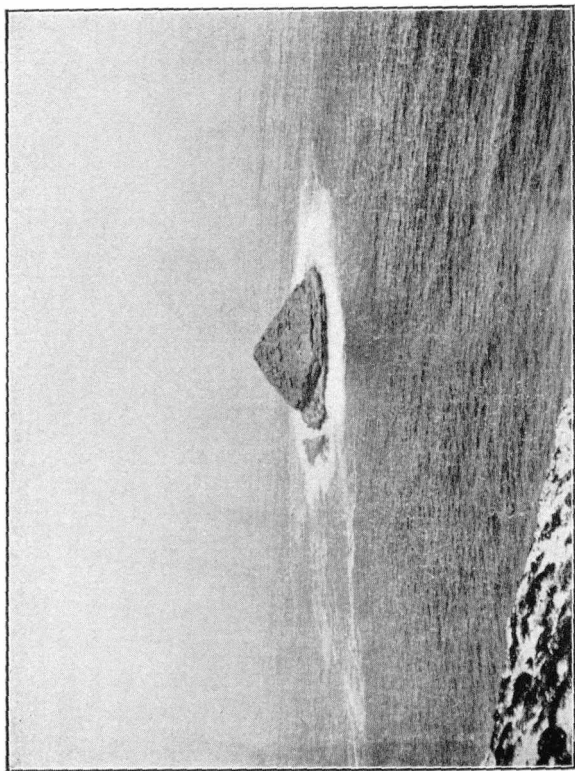
berigora occidentalis) was captured later on, and upon examining its stomach it was found to be greatly distended with small reptiles (lizards). The lighthouse was now reached, being one of those wonderful unattended lights which go out with the daylight and light up with the darkness.

—A Wonderful Sight.—

We were now on the highest point of the island, the south-eastern corner. Looking over the perpendicular cliff, 700 ft. below, the mighty Southern Ocean rollers dashed themselves to foam upon the harder rock foundation of the island. Looking westerly quite a fine stretch of these majestic cliffs were in full view, rising from the line of white foam. It was a warm summer's day, and the thick heat haze hung low upon the water, so that at no great distance could objects be seen, and the mainland was only dimly visible. Turning our gaze more to the eastward a wonderful sight again opened up, for only a thousand yards or so from the base of the cliffs two strange sea-stacks raised their heads above the sea, like two huge black diamonds set in a snow-white setting—for the ocean thrashed them incessantly, and they were encircled always in a deep white border of surf. One rock was quite a pinnacle in shape, while the other was flatter and more rounded, and upon it a good many seals of all ages were seen sunning themselves upon the shelving rocks. How pleased all lovers of Nature will be to know that the Government will some time extend total protection to these poor creatures. Why they are allowed to be killed at any time during the year I cannot tell.

CLIFFS ON SOUTH SIDE OF WEDGE ISLAND.





HAYCOCK ROCK.

—We Return.—

Leaving this grand and imposing sight, we returned by the northern coastline, and, looking over, here and there great gulches were seen worn into the rocks by the action of the sea. Occasionally a big sea would surge up into these clefts in the rock, forming a boiling cauldron, but it was too far below us to hear the sound. Once, upon looking over, we saw one of the yacht's boats lying just outside the mouth of a huge sea cavern, into which the water boiled—truly a very dangerous looking place. We could just see the crew wave to us, for the boat was a speck upon the water, hundreds of feet below us. On our way back to the landing place we met with both the banded and the spur-winged plover. As we passed through a well-grassed paddock a number of the Messrs. Golley's brood mares and foals were seen in the pink of condition, and included some splendid types. The day was warm, and walking back through fairly loose sandy country made it hot work, and we were glad to reach the little beach from which we were conveyed on board the yacht. After the inner man had been satisfied, what remained of the day was spent in fishing by fishermen, and some most beautiful whiting were hooked. The writer was busy for some time curing specimens in many branches of Nature study, and writing up notes upon them.

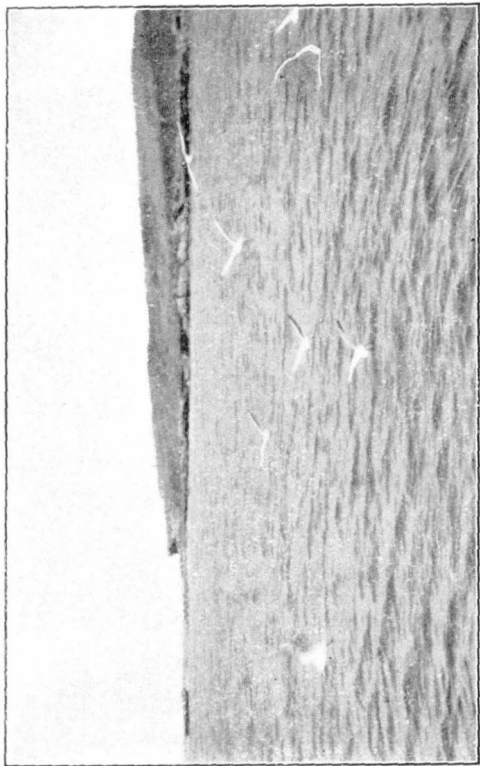
—In Search of an Owl.—

Next day, the Messrs. Golly having stated that very often a brown owl, which does not call like the boobook owl, is seen upon the island, I landed, and in company with the owners of the island made

a search for this bird. We beat the thickest of the teatree scrub, for many of the trees have a very dense and heavy top, just the place for a nocturnal bird to pass the day in hiding. Every likely tree was shaken, but no owl was seen. We flushed a stubble quail, the first seen this trip. The Messrs. Golly told me that these birds visit the islands in great numbers at times. A honeyeater was disturbed in the teatree scrub, but it was too shy and quick of movement to be identified. Leaving the scrub we struck out over a clearing covered in high dry grass, then over a saltpan towards the north-western end of the island. At one place we turned over some large slabs of travertine, which had become detached from the crust or bed, and underneath several species of lizards were captured, among them one called the barking lizard. Some insects were also taken here—one Mr. Lea is describing as new to science. After taking some photographs a move was made for the beach; and, the day being warm and we having had a long tramp, a bathe in the sea was enjoyed. In the meantime a boat put off from the yacht, and I said good-bye to our kind friends of the island. The anchor was soon up, and we were heading over for the mainland. We passed along the full length of the island, and as soon as the two strange rocks appeared clear of the south-east end of the Wedge we began to feel the mighty roll of the Southern Ocean.

—Homeward Bound.—

The sea was smooth, but a big ocean swell was sweeping in over which the Avocet skimmed like a bird. A discussion took place regarding the height of



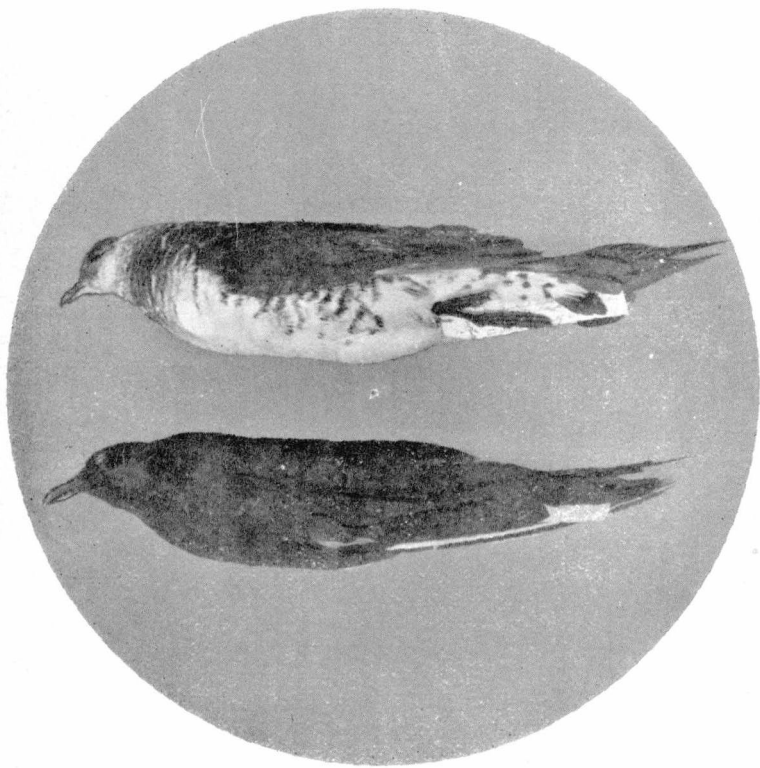
PONDALOWIE BAY.

some of the rollers, and it was strikingly illustrated a little later on when we passed the ketch *The Arab* on the way across the gulf, for at times we lost sight of her spars and all. Towards evening we approached Pondalowie Bay once again, and a grand sight was seen as we made the entrance to the bay. The huge rollers were sweeping in on the outlying reefs—they would strike one end and run along, curling over and over, leaving a great mass of foam behind them. Those who forced their way in between the reefs broke upon the rockbound coast with great fury, sending the spray far into the air—in some instances almost over the islands that guard the entrance to the bay. Our skipper's eye was ever watchful for the great green seas which surged around, and soon he had his smart little craft in calm waters. The anchor was let go in two fathoms over sand, and we were very close to the spot where that very clever piece of work was carried out by Capt. Weir when he beached the *Governor Musgrave* after she struck the reef outside. That night we went to sleep with the ship steady, but with the booming and surging sound of the angry ocean breaking but a few cable lengths away from us. Next morning (January 8) we stood out of one of the most beautiful little bays upon our coastline. The sun was just rising, and the landscape and seascape were bathed in the softest light, catching each wavelet as it broke upon the sandy beach, dancing along the wet sand, like a cord of silver. The faint murmur of the water as it rippled along the shell-strewn beach just reached us. Gulls were calling to one another in their harsh voices, and the weird note of the sea-curlew

sounded mournfully as they winged their way along the coast to some feeding ground. The shrubs upon the islands looked intensely green in this early morning light, and the rugged coast and the dashing spray all made a scene not easily forgotten.

—Along the Coast.—

The clatter of the anchor chain had ceased, for the mudhook (often so called by the sailor) had been made fast, and the yacht, forging ahead by her powerful engines, was soon heading for the open sea. First a gentle wave or two slapped the vessel's sides, but soon she rose and fell to the pulsation of the ocean. We steamed towards the line where sky and water seem to meet, till all dangerous rocks and outlying reefs were well in shore. Then the course was changed to a more southerly direction, and instead of meeting the mighty rollers they came more abeam—which made us take a firmer hold as we sat on deck. Cape Spencer was rounded, and a course steered between the little Althorpes and the mainland. The seas were almost abaft now, with a freshening breeze from the north-west, with rain-squalls. After passing Cape Yorke the ocean swell was not nearly so heavy. Passing close inshore the changing coastline was an ever-interesting sight. At Marion Bay we saw the steamer Willyama seemingly peacefully lying at anchor. To all appearances nothing would prevent her steaming away at the pleasure of her captain, but we knew that a big rock pierced her bottom, and that she had been in this position with her bows heading out to sea for a long time. While on the water my medical friend and I were always on the



DARK AND LIGHT PHASES OF ARCTIC SKUA.

watch for two species of birds, the skua and a white-breasted petrel. There would be a sudden start at some seabird afar off, but when the field glasses would be brought to bear the same exclamation would come—a tern or a gull. But there was much good fortune in store for us.

—The Arctic Skua.—

After lunch, when most of the crew were having a nap, the writer spied the unmistakable flight of a skua. Mr. E. S. Rymill was at the wheel, and Mr. Acraman went into the bows to keep a lookout. All was excitement, and the boat was splendidly maneuvered after the bird, which in due course was secured. This was not at all an easy matter with a fresh breeze blowing, and every credit must be given to our very kind friends for the splendid way they secured the bird, and gave their ornithological passengers a chance of handling the first arctic skua taken in South Australian waters. The temperature had to be taken, also measurements, the soft parts had to be noted, and so on, and of course a great deal of talking took place. An occasional bird of this species has been seen at odd times when passing up and down the gulf, but without handling the bird it was impossible to say to which species it belonged. So one of the main objects of the cruise had been achieved.

—Something About Skuas.—

The arctic skua (*Stercorarius parasiticus*) is like a gull in appearance, but the flight is very distinct. It is credited with taking all its food from other sea birds—that is, allowing them to catch the food, and then compelling them to disgorge it. We saw them chasing terns and gulls, evidently for

that purpose. Mr. A. J. Campbell was the first to record this bird from Australia, about 1883, and in Mr. G. M. Mathews's "Birds of Australia" he says:—"When steaming up Port Phillip Bay last October I noticed numbers of these birds hovering over our wake near the vessel." These birds show a strong character of dimorphism—that is, a great difference in colouration between individuals. This is not due to accident, but a trait constantly shown. Some birds are sooty brown, and others are brown and white, and it is on record that the partial-coloured birds are found mated with whole-coloured birds. They do not nest on the Australian coastline, but mostly within the arctic circle or close to it, so that the bird has a great range. Steyneger writes in *The United States Bulletin of Natural History* (1883):—"On the Commander Islands the dark form is the most common. A few only with light lower surface were seen, and one secured. This species is found mostly on Bering Island, where it breeds on the great tundra, or swamp, near the village. In 1883 the first ones made their appearance on May 4. In the autumn they seem to feed to a great extent on berries. The natives call them by the Russian name, 'Rasbojuck.'" So we see that there is much to be learned about this bird, and many questions will be difficult to answer. For instance, does this bird go up to its northern nesting place every year after wandering round the Cape of Good Hope down to Kerguelen Land, around New Zealand and along the Australian coast, occasionally visiting Madagascar and Ceylon? The ways of Nature are indeed wonderful, for we know for certain that many species of waders leave us every year to

breed and bring up their young on the tundras of far-away Siberia.

—Troubridge Light.—

The same evening we made Troubridge Lighthouse, and at 6.30 dropped anchor in two fathoms over weed. We were in calm water, for the anchorage is well protected to the south by the numerous shoals. The sandy island, upon which a lighthouse was situated in 1855, was once much smaller, and in recent years it has increased greatly, until now it is covered with bush and grasses. Three of us landed and walked round the island. The birds were numerous and of many species, mostly of the wading varieties. A good number of cormorants were on the spit at one end of the island. Both the yellow-faced and the black-faced were represented, but the former were in greater numbers. Numerous crested terns were flying round and settling in close formation upon the beach, calling loudly all the time. Pied oyster catchers made their presence known by their loud, shrill call, and hooded dotterels tripped along the sand in front of us. These beautiful little black-and-white birds are marked so quaintly that they appear as if adorned with a dark hood, with the white breast showing underneath. To add to the effect their eye-lids, bill, and legs are bright red. The hooded dotterels nest upon the secluded beaches along our coastline, and they lay their eggs on the bare shingle or sand just above high-water mark, where they are very difficult to detect, owing to their protective colouration. Little terns were in numbers patrolling the beach. They look like large white swallows at a distance, for they are very graceful on

the wing. When they came closer their long, yellow, and sharp bills could be seen, ever pointed downwards, as they surveyed the shallow water beneath them, in search of food, and when they sighted something good they would hover over the spot for a moment, and then down they would plunge like a stone.

—Other Birds.—

The berry-laden bushes and the ripe seeds of the grasses had attracted land birds to this little island. First of all the little rock parrot was flushed from among the dry grass, rising quickly with a plaintive call, only to fly a short distance and then down again. When the young are old enough the parent birds leave the rocky islands where they have reared their family, in holes in the rocks, and take them along the sandy coastline in search of food. The familiar little white-fronted chat or tintack was observed. Wherever vegetation exists so in its turn will it be attacked by insect life, and these beautiful little insectivorous birds had come to the islet to carry out their work in nature. The ground lark or pipit was also seen searching for its food, which is insect life. As we returned to the spit where the boat was left it was found that many species of waders and gulls, terns, and so on, were congregating for the night. Sharp-tailed stints were in numbers, and here and there a little stint was seen; both these birds travel up to the great tundras of Siberia to nest and bring up their young, returning to our southern shores when the young birds are strong enough to follow them. Numbers of gulls and terns flew overhead calling loudly in their harsh voices as a pro-

test against being disturbed. Cormorants were standing in lines upon the wet sand. This throng of seabirds brought Bishop Mant's lines to mind:—

If the woodland and the field
 Their feather'd tribes more scantily yield,
 More full the wintry coast along,
 The assembled flocks of ocean throng.
 Some native birds perennial; some
 From inland moor or freshet come
 To winter on the fishy shore;
 And some from far-off region froze
 Where reigns uncheered a dayless night,
 Have hither sped their annual flight.

—The Last Day.—

We pulled off and boarded the yacht in the dusk of the evening, as the last flush of colour died slowly out of the western sky. After the evening meal we sat round the comfortable cabin and discussed the good work which had been done during the voyage. During the night the wind freshened and rain squalls broke over the craft from the south. Next morning a good stiff breeze was blowing, and after breakfast the anchor was weighed and we headed up the gulf. The wind increased, but it was a fair one, and the seas came tumbling aft as we sped along under canvas and steam. Not many birds were seen coming up the gulf. A few Australian gannets were searching the troubled waters for finny food. The Port Adelaide River was made early in the afternoon and the moorings in good time. So ended a most enjoyable and profitable cruise, thanks to our very kind and thoughtful yachting friends. The writer has the most pleasant recollections of the many enjoyable conversations with Mr. Rymill, sen., upon old times and the early days of the colony. Mr. Rymill, in spite of his many years in

the land, fairly revelled in the sea trip, stormy or fine.

—Work Accomplished.—

The scientific research carried out by my medical friend and myself was interesting and of value, because the skua was identified as "the arctic skua." After examination of the stomachs of numerous cormorants (commonly called shags) not a single marketable fish was discovered. Their stomachs contained many fish, but they were either leather jackets or weed fish. A most remarkable observation was made when seven rounded granite stones and one sand stone were taken from one cormorant's stomach. These stones weighed $2\frac{1}{2}$ oz., and their presence points to the fact that they were swallowed deliberately to help the digestion of food. It is a well-known fact that seals often swallow large stones for this purpose. The temperature of birds was another very interesting subject. It was found that the cormorant had a temperature of 101 deg. F. to 101.2 deg. F. Mutton birds, or short-tailed petrels, taken from the nest registered 100 deg. F. to 103.2 deg. F.; arctic skua, 106.2 deg. F.

—Another Cruise.—

On March 24 the Avocet again put to sea in the interests of ornithology. This time it was to visit the eastern side of St. Vincent's Gulf to see the cormorants in their home among the mangroves growing alongside the salt creeks. The party consisted of Mr. and Mrs. A. G. Rymill and their son, also Mr. E. S. Rymill, the writer, and his wife. Our medical friend was not able to accompany us, and I greatly missed him, for

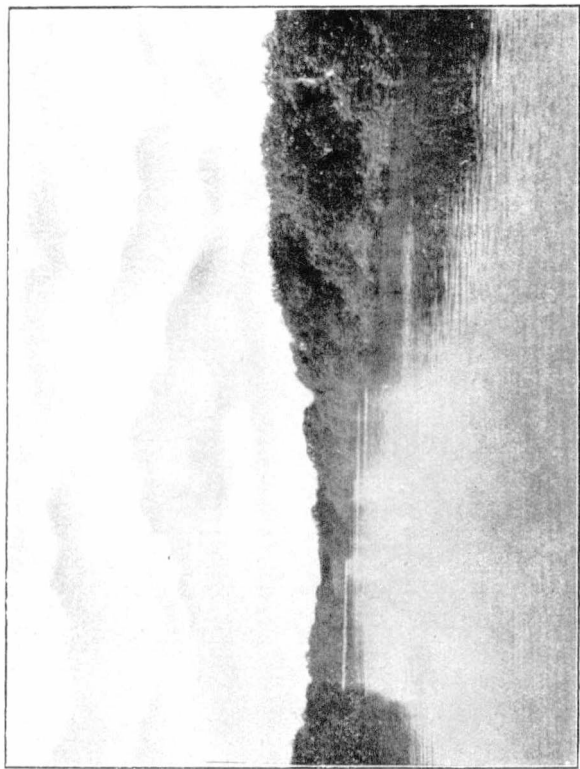
there is too much to do for one man once he gets going with the research work, for it is much easier for one to take temperatures, measurements and so on, and the other to record them. On Friday afternoon, March 24, we boarded the *Avocet*, and found that Mr. E. S. Rymill, who had preceded us, had the craft ready for sea, and when the steward came off we slipped the mooring and stood down the Port River, bringing up at the Outer Harbour in three fathoms of water. Darkness soon closed in around us, and it being a warm evening we sat on deck chatting and contemplating the starry heavens. The city and Port Adelaide could easily be located by the reflection of light in the sky above.

—A Start Made.—

Next morning gave every indication of a hot day on shore, but the early morning on the water was delightful. After breakfast three of us put off in the dinghy and landed on the sand spit in search of cockles for bait. After paddling about in the shallow water and getting sufficient shellfish we went on board. The Port River wore a cheerful aspect, for much shipping was passing in and out. Getting under way, we stood out to sea, then steamed north along the coast. Reaching the locality around which we wished to work, the anchor was let go over a weedy bottom in one and a half fathoms of water. We found that the tide was still out, and great mud flats—which extended between our anchorage and the dense mass of mangroves—were showing up for miles on either side. By the aid of glasses it could be seen that many waders were hunting for food along the mud banks and in the shallow water.

—Among the Mangroves.—

Quite a number of graceful swan were seen sporting about in a shallow lagoon caused by a wide mudbank to seaward. The skipper's son busied himself fishing, but the fish that he hooked were not of much account, for they were of two species— toadfish and trumpeter. One or two were thrown overboard, and soon a yellow-faced cormorant and a pelican were racing for the spoil. The quaint old pelican came quite close, and afforded us much pleasure in watching his movements. Later on, finding that no more food was forthcoming, he rose from the water with heavy flapping, and lazily flew to the mudbank to join his friends. Late in the afternoon the tide had covered all the mudflats, so orders were given to swing out one of the ship's boats, to which a motor engine was attached. All the party took their places in the boat, and the yacht was left in charge of the steward. When we reached the dense fringe of mangroves, it was difficult to find the entrance to the creeks, although some of the large ones had had as many as two or three openings to the sea. At last one through the vegetation was seen, up which the tide was racing fast, and with the aid of the motor engine our boat moved along merrily, and we were soon shut in on either side by the dark-green mangroves. The evening was close, and the late afternoon sun very hot, so that the atmosphere became oppressive after leaving the open sea. Going up the creek for a long way, not a sign could be seen of the cormorants or their rookery on the muddy bank, and passing through the mangroves on to the samphire swampy ground, honeycombed with crabholes.



MANGROVE CREEK. HOME OF THE YELLOW-FACED CORMORANT.

—The Cormorants at Home.—

A few cormorants that were coming along the coast were seen to pass to the south-east, and then go down, so we came to the conclusion that these birds must have their resting place in that direction. Before going back to the boat I saw a small party of brown wrens, but did not see any male birds in their glorious plumage of black and blue. As we retraced our way down the creek, not nearly so fast as on the upward way, for we were battling against a strong tide, a kingfisher or two darted along in front of us, and at several points flushed a bird apparently belonging to the stint family. The mangroves were now throwing shadows on the water, for the sun was getting low, and we once more emerged from the dark-green vegetation into the open sea, to coast along for a short distance, then dive again into the mangrove forest. We had not far to go, when we met with a large rookery of yellow-faced cormorants. We could study and take observation as these fine birds sat in numbers upon the large mangrove trees which were so well white-washed that they suggested having been used as a resting place for some time past. After observations had been taken, and necessary specimens secured, we had to start back for the yacht, because the shades of evening were falling fast. When we reached the open water our course led over a track of shimmering light, which reached ahead of us to where the sun had sunk to rest.

—The Weather Changes.—

A sullen, angry glare hung round over the locality where old Sol had dipped his head, and, hanging like a pall were huge

dark clouds. To the practised seaman's eye all this gave warning of an approaching storm. Having seen to my specimens, after the evening meal we sat on deck and talked. It was a decidedly thundery atmosphere, yet very pleasant upon the water. We could see the riding light of a ketch not far off. Maybe her skipper thought a blow was coming and anchored for the night over this shelf, called "The Flats," which is known to break the send of the ocean swell as soon as it comes in contact with the outer edge. When we turned in there was a dead calm, only the light flapping of the water on the boat fastened astern broke the stillness of the night. Towards morning all hands were awakened by a squall that struck the craft, and made her tug frantically at her anchor chain. A little rain fell, then the storm died away; but it was not long before another blow came up from the west, and by daylight the wind was creeping round to the south-west and gaining in strength. There was nothing for it but up anchor and make for the Port River, and by the way the wind was freshening it was deemed advisable to postpone breakfast until we reached quieter waters. The boat was soon hoisted out of the water and made fast, and the engines rattled up the anchor, and our skipper steered a course over the shallow waters of the flats to avoid the sea, which was now rising. But very soon he had to stand out into the teeth of the blow, and we were taking the short seas over the bows. The yacht behaved well, and ploughed along all the morning against a strong sou'-wester and a nasty short sea, and raining squalls broke every little while over the craft.

—Once More in Calm Water.—

The Outer Harbour was made in due course, and we went up the river to Pelican Point, where the anchor was let go, and we lay quietly, with rainsqualls keeping everything on deck rather damp. After a good meal everything looked much better, and, despite the cold, light rain which was falling, a boat was lowered, and my kind friends went on shore with me to assist in the investigations I had to make with my specimens. Many interesting observations were made, and it was found that the only marketable fish found in a number of cormorants' stomachs were young flathead and two tommy roughs. Mudfish, toadfish, leatherjackets, and squid far outnumbered any edible fish. It was found also that one cormorant's stomach contained 28 toadfish. This is remarkable, not only for the number, but because these fish are generally understood to be poisonous. Measurements were then taken, and it was found that many of these fine birds have a stretch of wings over 4 ft. Going on board, we were once more underweigh, and made fast at the moorings in good time. So ended a profitable (as far as ornithological research goes) if not an altogether pleasant trip.

—Still Another Cruise.—

There is no end of voyaging,
When once the voyages are begun.

Last Easter, through the kindness of Messrs. Rymill, the Avocet again put to sea in the interest of ornithological research. The party consisted this time of Messrs. A. G. and E. S. Rymill, Mr. Edgar R. Waite (Director of the South Australian Museum), Mr. Robertson, my medical

friend, and the writer. The objective this time was to finish our work among the islands of Spencer's Gulf, but the elements ruled otherwise, as this narrative will show. It was late on Thursday afternoon when we boarded the yacht, and after some delay it was nearly dark when we cast off the moorings, but did not get far down the Port River when we had to take up a berth for the night. The afternoon had been thundery and oppressive, the glass was falling rapidly, and the sky showed unmistakable signs of a brewing storm. After dark puffs of winds blew uncannily from all parts of the compass, but later a blow came up from the westward, and rainsqualls broke over the craft during the night.

—A Start is Made.—

Next morning we heaved anchor and stood down the Port River in a heavy rainsquall, with the wind blowing strongly from the west to south-west. Our thoughtful skipper dropped anchor at the Outer Harbour, so that breakfast could be partaken of in calm water and comfort; after this we were underweigh again, and stood out of the entrance to the river in the teeth of a big blow and driving rain, standing almost straight over the gulf, reaching the coastline of Yorke's Peninsula between 2 and 3 p.m. Under the lee of the cliffs the anchor was let go, and lunch was served, and late in the afternoon we went on down the Gulf towards Stansbury. Some trawling now took place, and Mr. Waite commenced his work. Many strange creatures were hauled up from the floor of the ocean, long wriggling objects called pipefish, many species of strange

crabs, some very small, and remarkable for the mimicry of their surroundings, for when they drew in their legs and remained motionless they represented a piece of marine growth.

—We Continue the Cruise.—

After each haul with the trawl net all hands were busy capturing the marine objects and placing them in bottles for Mr. Waite, and we all enjoyed the discourse given by this great authority upon marine life. As some more strange specimen than others would be shown to Mr. Waite he would at once have a name for it, and tell us much about its life history, so we spent a most enjoyable and instructive time at the close of the day, when the wind went down. Reaching Stansbury at dusk, the anchor was dropped in the little bay, and we spent a quiet night. At daylight next morning we were under weigh once more, and as we rounded the point the wind began to rise, and was getting fairly strong by midday, when we ran into the sheltered bay under the lee of Cape Yorke. After lunch three of us were landed on the sandy beach. Mr. Waite and our medical friend hunted near the beach for insects and other things. I walked for two or three miles inland, but found that a bush fire had fairly recently swept over the country and destroyed much of the vegetation. Very few birds were seen—one or two magpies, a solitary pipit, two or three white-fronted chats, some silver eyes, and the familiar Willie wagtail. The latter bird is met with in nearly every locality, for many a time have I only just put up my tent when one of these beautiful birds would appear and straight away take possession, catching

flies inside the tent and out, just as if it had been on the spot with me for weeks.

—We Meet a Storm.—

Returning to the beach, hooded dotterels were seen, as well as both species of cormorants, silver gulls, and crested terns. Some of our party went fishing near the rocks at the cape and captured a number of highly coloured rock and weed fish. Some of these fish had most brilliant colourations. Getting under weigh, we shifted our position and took up a berth further out, for our skipper took no risks, in case of the wind changing, of being too close in shore. A big swell came in round Cape Yorke and kept us moving from side to side during the night. The following morning the anchor was up at daylight and we ran right out into the teeth of a north-west blow. Thinking that discretion was the better part of valour, the writer kept on his back in the bunk, and as the little craft forged her way further out into the strait, the harder the wind blew and the bigger the seas became; all portholes and companion ways were closed up, and by the movement of the yacht it could be easily told that the gale was increasing.

And now the stormblast came, and he
Was tyrannous and strong;
He struck with his o'ertaking wings,
And chased us south along.
With sloping masts and dipping prow,
As who pursued with yell and blow,
Still treads the shadow of his foe,
And forward bends his head,
The ship drove fast, loud roar'd the blast,
And southward aye we fled.

My sympathies were with the steward, whom I watched trying to keep things in their usual places by jamming towels, &c.,

HUNTING FOR PENGUINS, ALTHORPE ISLAND.



in between the fittings; then he set his energies to keep his cooking utensils together in the galley. Through the half-open door I saw him collecting these articles time after time from the remote corners of his galley, at times calling them by endearing names. All at once a mighty roll sent the long-suffering individual in a sitting posture upon the galley floor, with all the articles in that department strewn over and around him. His face was a study, and for a moment took me out of my misery. Then he spoke words most forcible and to the point. The elements, the tight little craft, and the articles which were strewn around him all received his blessing, which I could have bestowed myself, but for good reasons did not dare run the risk of putting them into words.

—Work on the Althorpes.—

Later on I saw our skipper's beaming face (dripping with salt spray) thrust through the companion way, and his cheery voice reached me in my bunk as he said:—"This won't last long, we are making for the Althorpes Light." I feel sure all on board were glad when we ran into the little cove under the shelter of the island. A big swell came round the end of the reef and into the bay, which made the yacht roll a lot. Four of us landed and climbed to the top of the island. It was found that all the parent birds of the short-tailed petrels or mutton birds had long since left the island, and the greater part of their young had flown off to join the parents out at sea. We found some in the burrows which had not yet lost all the down; many of them were taken out and their temperatures

recorded, after which they were replaced in the burrows. The temperatures of these young birds ranged from 99.4 F. to 101 F. We then descended to the base of the cliffs and captured many penguins, and their temperatures were also taken. It was found that they ranged from 100 F. to 104.2 F. We went on board the yacht towards evening and rolled about all night, the weather being very rough with heavy rain squalls. Although a good big roll came into the cove, still we were fortunate to have such a haven, and while the wind kept in the south were quite safe. A fishing cutter was keeping us company, and all day long her skipper walked her decks watching the storm-tossed sea outside and no doubt cursing the fates that were keeping him inactive.

—Weatherbound.—

Next morning broke stormily and we were still weatherbound, so, after breakfast, were glad to get on shore, when I cured some specimens and did not go on board till late in the afternoon. In spite of the rough water, our friends captured a nice lot of fish, angling from the dinghy alarmingly close to the huge breakers, which came dashing round the end of the reef. Two or three steamers passed up or down the strait during the day, and it was a wonderful sight to see how they were buffeted by the big sea that was running. Sometimes, when a sea struck a steamer, the water would rise higher than the bridge, and apparently break right over it. Our skipper put out another anchor to try and steady our craft, for the night was stormy, rain and hail beat down upon us, and lightning flashed incessantly all round. We rolled all night, and during



DR. MORGAN ASSISTED BY MR. ELLISON-ROWE TAKING TEMPERATURE OF PENGUINS

the morning parted from one of our anchors. Three of us landed after breakfast, climbed to the top of the cliffs, and walked to the south side of the island, where the wind was so strong that it was with difficulty that we made our way along the edge of the cliff. Returning to the landing place we went along the base of the cliff to a grave situated in a niche under the overhanging cliff. Only just above high-water mark, a narrow mound of stones marks the resting place of one of the early mariners, for a board bears the inscription—"In memory of G. Peterson, aged 48 years, October 8th, 1838." It is said that he was one of the crew of a whaler, and there he has rested since '38, and every night hundreds and hundreds of penguins screech out their mournful dirge, their voices rising and falling in chorus like the rise and fall of the waves upon the granite rocks. The wind has howled and the surf has roared, and still he sleeps on, far from his native land, some mother's child, mourned, it may be, deeply at the time, but that generation has passed away, and is now all but forgotten: still, if some kindly hand renews the headstone from time to time, this departed mariner will be visited in his stony bed by all who call at the island.

—Another Day Spent on the Island.—

The afternoon was cold and stormy, the great seas thundering in upon the reef were a great sight as they flew high into the air in a mass of spray, but the weather had every appearance of moderating, and we were in hopes of the sea going down sufficiently on the morrow to allow us to slip out. Some of our party tried in many

places all the afternoon to catch fish, but were unsuccessful, in spite of all their efforts. Just at dusk the bronzed and weather-beaten fisherman walked his deck and rubbed his hands as he looked out over the dark and troubled waters, but there was something in the sky and sea which appealed to his experienced eye, and gave hopes of a break on the morrow. Being weather-bound, with half a cargo of fish, was very tantalizing. Two or three efforts were made during the day to try and recover the anchor, without success, and it is supposed that being of a good pattern and tugged upon by the rolling craft, it had buried itself deeply in the sand. We said good bye to the headkeeper of the light (Mr. Stark) during the afternoon, also Mr. Ellison Rowe, the second in command, the latter having given us much assistance with our work on the island and taken a great interest in all we did, and we were glad to think that our visit was a pleasant break to the tedium of lighthouse work.

—Once More Underway.—

Next morning (Wednesday, 26th), our skipper decided to make a run across the strait to Pondalowie Bay, and by 9.30 the anchor was up, and the Avocet stood out to sea to avoid the outlying reefs, then took a northerly course, with a big sea running, which was breaking all round us as we made the entrance to the bay. The yacht was skilfully navigated to the berth, where the anchor was let go over weed and sand in four fathoms of water. Our medical friend, Mr. Waite, and the writer landed on the island at the entrance to the harbour, and searched the island over again, and made observations and notes upon the "Warriner" shells (*Turbo stami-*

neus), which had been carried up to the top of the island by the agency of birds. It has always been understood that the Pacific gulls take the live shells from the reef and carry them high up over the bare rocks, letting them fall as a means of breaking the shells to extract the edible contents. Some doubt has been thrown upon the possibility of the gulls doing this, seeing that some live shells were weighed, and proved to be $10\frac{1}{2}$ oz. Still, the writer feels confident that such is the case, and reliable information has come to hand from those who have actually seen the Pacific gulls in the act of carrying up the shells in question. Mr. Waite discovered a land crab and other specimens alive, and I was able to secure a few botanical specimens, which I overlooked last trip, as well as a few insects.

—The Little Blue Wren.—

We returned to the yacht for lunch, and I was again landed during the afternoon on the sandy shores of the bay, and worked back through the scrub for some distance. Very few birds were seen, the weather being rough and showery, and rain squalls passing over at intervals nearly all the time. The day was bad for bird observing, for the feathered tribe were in the more sheltered places, and were not calling to one another. While scrambling through the undergrowth I disturbed a small party of red-shouldered wrens. There was one male bird showing signs of nuptial plumage, and was accompanied by a party of brown birds. This lovely family of birds has for a long time been credited with polygamy, simply because a blue bird will be often seen with a number of brown birds around him, and the latter have

been put down to the females. From observation made over a considerable time I am of the opinion that these birds do not practise polygamy. Seeing that the male bird for the first year is of the dull brown colouration of the females, it can be easily understood that several males of the same year's brood may be forming a family party, and mistaken for the wives of the blue bird. Nests of these birds in the course of construction have very often come under my observation, and I have only seen one male and one female at the nest building, although I have more than once seen two males in full plumage of glorious blue feeding a brood of nestlings. After a long tramp, and seeing very little of animal life, I made my way back to the beach, was picked up by one of the boats, and returned to the yacht. The night was cold and stormy, and we spent an hour or so very pleasantly entertained by Mr. Waite discussing the life history of many fish and marine life.

—Our Slumbers are Disturbed.—

Our medical friend and Mr. Waite occupied the cabin aft, while the remainder of the party slept in the main cabin amidship. In the dead of night muffled sounds came from the after cabin, the result of discussion as to the origin of some strange sound, which had awakened the occupants. Then all was still, and I fancy we were deep in slumber again, a slumber which only comes to those who have been breathing the salt-sea air all day, and are gently rocked on the bosom of the ocean at night. An exclamation again came from the after part of the boat, awakened us, and we soon heard the cause. It appears that the large land crab captured by our genial

little zosterops, or white eye, was identified by its mournful note, which seems doubly so when heard by the sad sea waves. Spiney-cheeked honey-eaters were in great tune, and their liquid, musical notes could be heard simultaneously in several places. This bird, which is closely allied to the wattlebird, has a quaint gurgling call at times. A male bird was seen to take a zig-zag flight towards a sheaoak tree, and, alighting upon the topmost branch, lifted his head up, with bill pointing straight in the air, the feathers of his throat began to move, and then a liquid gurgling note seemed to come from several places at once. It is only for a few seconds, then he is gone with strange erratic flight to the cover of the bushes. A number of beautiful red-capped robins brightened the scrub with their patches of scarlet, flitting from bough to bough. Honey-eaters were seen, the singing honey-eater being the most numerous. Many scrub wrens were also visible on the way back to the beach. Then a dip in the briny was indulged in, and I returned on board for a lunch.

—All Hands Go Fishing.—

During the afternoon some dredging was done, but it was found that the bottom of the bay was very dead, and at each cast little living fauna was brought up, so all hands went fishing, with the exception of the writer, who had specimens to preserve. One boat went to a submerged rock at the entrance of the bay. Over this rock the incoming seas boil, and at times break. This is a favourite spot for fishing, for it seems quite a meeting place of many species of the finny tribe. The fishermen told me it was a wonderful sight that

afternoon to peer over the side of the boat through Mr. Waite's seascope, and see the fish swimming below—the wonderful colouration, the strange shapes. I could well understand this when I glanced at the assortment they brought on board. “Ah, Mr. Waite,” said one of the fishermen, “we have a fish you have never seen before.” “My word, I am glad of that,” said our genial Museum Director, but I fancy I saw the suspicion of a smile pass across his countenance. All peered into the tin, where a wonderful assortment of fishes was jumbled together. All the colours of the rainbow, delicate blues and greens, flashing scarlets, dull reds, some almost black, others spotted, and some banded with black upon an almost white ground. Then their shapes varied so; some species were nearly circular, and others tapered away in most fascinating lines. At last the hands that were searching among the scaly wonders brought forth two marvellous fish. Their bodies were dark, with intense blue markings, and the strange tentacles, like whiskers, which adorned the mouth, also the fins, were of the same shade of wonderful blue. Directly Mr. Waite saw the fish, he said, “Oh, this is so and so,” giving the scientific name. “There,” said our skipper when he had recovered from the jawbreaker, “I don’t believe there is a fish in the sea he does not know.”

—Homeward Bound.—

That evening the possibility of continuing the cruise was discussed, and it was quite patent to all that there was not even a remote chance of landing on the islands and reefs if the weather we had been experiencing continued. So, next

morning, at an early hour, the Avocet was under way again, and, standing out of the entrance to Pondalowie Bay, and most reluctantly we turned on a homeward course. A good big sea came tumbling in, and dashed itself into spray as it beat up against the rugged coastline. The remains of the wrecked Ethel could be seen plainly with the naked eye, when she lay under the shadow of the towering cliffs. It seems wonderful that this boat should have been thrown up upon the only little patch of sandy beach for miles on either side, and the huge seas picked her up and dropped her at the foot of the cliff, where she now lies. Rounding Cape Spencer, we found that the sea was much quieter, and by the time Cape Yorke had been passed the sun was shining brightly upon an oily sea. Our friends stopped the engines here, and we drifted upon the tide. A boat was put off to pick up a specimen which had drifted inshore, and in the meantime lines were baited for fish. The water was clear, and the bottom could be plainly seen at a great depth. A Port Jackson shark or two were hooked, but no fish. Jellyfish of exquisite shape and colouration went floating by, and some interesting marine life was taken upon floating seaweed by Mr. Waite.

—Back to Troubridge Light.—

Having no luck with the fishing, the engines were started, and our skipper stood in towards the land and picked up the boat's crew, and we soon hauled the boat up and stood on our way up the gulf, keeping a sharp lookout for skuas. One was seen at a distance chasing a tern which evidently had secured some food, and the skua was harassing it to make it disgorge

the prize. As the afternoon was getting on we made Edithburgh, and dropped anchor to the south of the pier. Three of us went on shore for papers, to make some purchases, and send telegrams home. The little town wore a busy aspect, for a large steamer was berthed alongside the pier, loading salt. To see truckload after truckload of salt being swallowed up by the ship's iron sides made one realize what a great industry this salt business is. The mill was heard at work refining, and huge stacks of salt were to be seen everywhere. We left the little bay and its numerous gulls, and stood over to Troubridge Light, dropping anchor not far from the spit. Four of us landed, and walked round the island, two going in opposite directions, and met at the far end. A good many birds were observed. There were both species of cormorants, yellow-faced and black-faced, the former predominating. Crested terns were in numbers keeping up their harsh cries, and little terns were also numerous, and red-capped and hooded dotterels were running along the sandy beach. Caspian terns sailed overhead ever on the watch for food below, and these birds are easily distinguished by their bright-red bills. Curlew sandpipers and sharp-tailed stints formed small parties, and a few stately old pelicans were sitting upon the beach. An immature double-banded dotterel was also seen, this being of interest, for these birds nest in New Zealand, and it seems a long journey for a young bird.

—On the Homeward Way.—

We spent the evening after tea discussing work done during the trip, and what work might have been done if the weather had been more propitious. Next morning,

Saturday, 29th, the Avocet was under way by 8.30, and we stood up the gulf with a light northerly wind, which increased as the day went on, bringing up a choppy sea. During the morning our medical friend and the writer made an examination of the stomach contents of three cormorants taken at Trounbridge. The first specimen opened was a surprise for the writer struck something hard with the knife, and upon investigating it was found that an electric light globe was well down the bird's neck. This puzzled us for a moment until we saw our friends' faces covered in smiles, then we knew that a trick had been played upon the unfortunate ornithologists. Touching upon the contents of one of these birds, some interesting discoveries were made, forming material for lengthy discussions, which have been commented upon in both the Royal Society and Ornithological meetings.

—A Strange Diet.—

The third cormorant had swallowed 10 shells, and it was contended by some that the bird had done this to aid digestion, others thought as food, while a third section considered it quite possible that the bird picked the shells up accidentally when seizing its prey upon the sea bottom, and I share that last belief. Dr. J. C. Verco most kindly identified the shells. It is not necessary to give the scientific names here, but it will suffice to say that there were 10 specimens representing six species and I cannot do better than quote Dr. J. C. Verco's notes upon these shells:—"That none of the bivalve species have the two valves of any individual suggests that none of these was swallowed alive. Two of the valves are plainly partly disinte-

grated, and have long been dead. The phasianella is an old discarded shell, and so is the fragment of *Halotia conica*. The only specimen which might have been swallowed alive is the *Halotia conica*. So the shag probably does not take these shell fish as food. The whole unbroken condition of these large bivalves and the condition of the rest as regards freshness, suggests that they were not swallowed by a fish as food, the fish being swallowed subsequently by the shag. The very dead and partly disintegrated shells support this. Probably the shag darting after the fish near the bottom accidentally scoops up loose shells and swallows them with its prey. The shells seem rather large and unsuitable to be purposely swallowed as an aid to digestion, like the small pebbles swallowed by fowls." The writer agrees with the suppositions of this great authority upon shells.

—Work Accomplished.—

Now we come to the work accomplished upon these three trips. It was of much scientific value, apart from most interesting and enjoyable work. Little has been done to record the temperatures of the sea birds, and our medical friend and companion has added much to science in that respect. Little has been done in noting the changes of the soft parts (i.e., bills, legs, and feet) of the young, and some interesting notes were taken upon this. The Australian skua was identified, which was an important work. A new bird was described to science by the writer, and much valuable material gathered. One of the chief objects in our work was to prove without doubt that the so unjustly persecuted cormorant or shag is not

an enemy to the fisherman, and from the data and material collected we have not only done this, but have proved that these birds are the fisherman's friends. The wrong done the cormorant is through want of knowledge of their life history, and through jumping at conclusions. There is not the slightest doubt whatever that the cormorant can only catch the slow-moving fish, and it invariably seeks its prey over a weedy bottom, where it is not so easily seen, it being the habitat of weed and other slow-moving fish. It is also interesting to know that having discovered that a cormorant had made a meal of 28 toadfish shows that these birds are immune to poison, which may have been acquired through hundreds of generations. Numbers may at first have succumbed, but those that survived had progeny which were less affected, until to-day they are quite immune.

—Felicitations.—

We have much reason to thank our hospitable hosts for all their kindnesses, and science in general is much indebted to the Messrs. Rymill for having placed their yacht, their time, and skill at the service of scientific research, for without their co-operation it would have been impossible to have done that which was accomplished. It is to be hoped that our kind friends found some pleasure in the work they so skilfully helped along, for the writer has found from experience that a voyage, an expedition, or even a walk into the fields, is much more enjoyable if made with a certain object in view, and doubly so when the object is accomplished.

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