

## A POPULOUS SHORE

By FLORENCE MERRIAM BAILEY

WIDE MARSHES and their lagoons, separated by commanding sand dunes from a broad sandy beach stretching out of sight down the Pacific, afforded ideal natural conditions for migrating water birds, and their abundance was attested by sign posts just below Venice, marking the preserves of one of the gun clubs of southern California. Up the shore the low Santa Monica Mountains could be seen, very ordinary mountains in the strong revealing light of day, but in the glamour of purple haze standing rich and reserved, and, behind a veil of mist, coming under the spell of mystery and magic.

At sunset the low slanting light illuminated their cliffs and any ships that might be lying at anchor off the long pier of Port Los Angeles, as well as the rigging of the boats lying at anchor in the harbor of Venice, where flocks of Gulls gathered, flying about the pier and the sky above; and one night the light touched up a party of Cormorants sitting statuesquely erect on the edges of a row boat. Then a faint rainbow arched up in the southeast, and soon after, the Gulls disappeared for the night.

Farallon Cormorants were often seen in the canals of Venice, a resort built in imitation of the Italian city, and fortunately for me temporarily unpopular at the time of my visit, October, 1907. As I looked down from a bridge over one of the canals one day, a Cormorant dived and swam about close under it. A ragged boy with a raft pointed to the smelts that were swimming around. The Cormorants—"Hell Divers," he called them—"have caught onto it now," he explained; "there are more fish in the canals than along shore, and no swells." When one of the big birds came close up to his raft he was much pleased. "One thing funny," he said, "they get up on the bank and hold their wings out to dry." In the swimming pool one of the birds was diving for small water snakes. When he came up holding one, he worried with it for some time, the snake squirming around his bill refusing to be swallowed. When it went down at last in passing it made a big lump in his throat and he wriggled as if it were still squirming. But then he dived and that was the conclusion of the matter—as far as onlookers were concerned. A stand in the middle of the pool marked Deep Water was a favorite Cormorant perch, the birds frequently being seen there preening their feathers and drying their wings, the orange pouches at the base of their bills showing well. When one was on the bank of a canal oiling his feathers one day, a Kingfisher sat watching him as if wondering what manner of bird he might be, but having business of his own soon flew off to a stake out in the marsh.

Now and then a stray Duck or a Dabchick was seen on the canals. If a Dabchick, one moment it would be sitting quietly on the water, the next a series of quivering rings would mark the spot where it had disappeared. One of the exquisite Eared Grebes, as handsome and distinguished as the Dabchick is homely and plebeian, appeared one day, with arching neck and charmingly pretty ways, swimming gracefully about and diving with airy ease. As I watched it, its color pattern seemed like that of many other birds well fitted for recognition by those who know it and for protection from those who do not, for the gleaming white cheeks, seen from afar, may well disserve the

black head from the bird's body, while the black line down the back of the neck may also serve a double purpose.

But, though a few interesting birds were to be seen on the canals of the town, the throngs of Gulls and waders gathered at low tide on the ocean beach, flying over from the lagoons in the marshes where they apparently stayed during high tide. An interesting spectacle they presented as you looked down the shore line—myriad large and small forms including Godwits, Willets, Surf-birds, Gulls, and Sandpipers, running out after the waves and hurrying back before them, back and forth, back and forth, like children afraid of getting caught by the waves. Until the hunting season opened the birds were remarkably tame, so tame that afternoons at low tide they would walk along the shore ahead of me, and if disturbed by a heedless walker would merely circle out over the surf, cross the sunpath, and curve in to light a little farther down the beach.

In these assemblages the Gulls were the largest birds, and next to them came the brown Marbled Godwits standing on long legs with long bills down before them, most interesting birds in appearance and habits. One afternoon there must have been from a hundred and fifty to two hundred of them feeding along a mile of shore line. With them were a few gray Willets, looking much smaller as well as shorter billed, perhaps half a dozen in all, a few Surf-birds, and possibly two dozen Gulls, including the Ring-billed, Bonaparte, and the Western. Some of the Godwits were evidently young of the year, being smaller and lighter colored, and having shorter bills than the adults.

It was amusing to watch the birds feed. As a wave rolled up, combed over and broke, the white foam would chase them in, and as they ran before it, if it came on too fast, they would pick themselves up, open their wings till the cinnamon showed, and scoot in like excited children. But the instant the water began to recede they would right about face and trot back with it, splashing it up so that you could see it glisten. As they went their long bills—in the low afternoon sun strikingly coral red except for the black tip—were shoved ahead of them, feeling along through the wet sand, the light glinting from them; and if anything good was discovered deeper, the hunters would stop to really probe, sometimes plunging the bill in up to the hilt, on rare occasions when the tidbit proved out of reach, actually crowding their heads down into the sand.

Tracks and probings were to be seen on the beach where the Godwits had been. One of the long-legged birds would sometimes stop its work and lift up a foot to scratch its ear, and one that I saw feeding on the edge of a wave suddenly dropped and went through the motions of sousing itself, looking with its long legs and bill as comical as a human bather jumping up and down in the surf. While the Godwits were hunting absorbedly, sometimes the white foam of the next wave would flow in over their feet and encircle them, and at other times they would wait until the spray of a breaker was almost on them and have to scurry for it with open wings. When the tide was so low that the waves broke far out on the gently sloping shore, the birds hunted in a more leisurely manner.

They often brought up round balls, presumably small crabs or crustaceans, so big they had to gulp them down, and when tempting morsels were seen in their bills neighborly Gulls often gave chase. A hard pressed Godwit once

dropped its ball, but the pursuing Gull passed on without stopping to pick it up.

When the big brown birds flew they suggested round-shouldered Ibises except that their bills were not curved. In flight they often made a close flock calling *queep, queep, queep, queep, queep*, affording a beautiful sight as the light struck them and warmed up the cinnamon wings that make such a good recognition mark. They soared down handsomely showing the cinnamon, and as they alighted held their wings straight over their backs for a moment, the black shoulder straps showing in strong contrast to the warm cinnamon.

Though the flocks were generally most amicable, occasionally one or two of their number would get to scrapping. Two got hold of each other's bills one day and held on, one or both crying lustily. In a group another day two came to blows, first just opening their bills at each other and talking argumentatively. Later one of them made passes at the other till the harried bird lifted his wings as if meditating escape, and finally when a pass was made at his long unprotected legs, flew away. When one was teased by a companion it often cried complainingly, *go-way, go-way, go-way, go-way*.

In the flocks of brown Godwits, the few gray Willets looked small. They fed in the same way as the Godwits though their bills were shorter and they could not probe so deep, but they ran their bills ahead of them through the wet sand, probed as far as they could reach, and then trotted back before the oncoming waves. A thoughtless one sat down just at the edge of the water line one day, its back toning in with the sand, its long legs stretched out before it; but soon after it was comfortably settled up came the foam and it had to bend forward on its tarsus, raise itself, and flee up the beach. I often saw one resting, standing on one leg, or sitting at ease with white rump showing. When stretching, the black of the wings showed effectively as it does both when the birds fly up and when they alight with wings raised over the back. *Willet, willet*, they often called as they went.

One of the most interesting of the beach people from the far north was the solitary, preoccupied Surf-bird, with its short bill, spotted upper parts and streaked chest. It was social enough in nature, for when resting it was almost always with its fellows, as many as thirty-five being seen in a flock. And even when hunting it was generally with waders of other species. But in its hunting habits it was solitary, only one, two, or three Surf-birds being found feeding along the same stretch of beach, apparently because their short bill would not admit of their probing for their food, and there was not enough washed up by the waves to keep a hungry flock occupied. When six flew down on the beach within a rod or two one day, they quickly extended their line both ways till they were widely enough spaced to make the crustaceans go around.

The Godwit, sure of being able to dig up something when hungry, follows the waves when he feels like it and apparently thinks about something else between times; but the Surf-bird must take what the gods provide at the moment, and consequently has an air of attention, a preoccupied expression, as, Robin-like, he stands just perceptibly tilted forward on his long legs, watching, watching, for what the waves may bring. If his eager eye detects a crustacean he runs nimbly down the wet sand behind the retreating wave, dips forward, picks it up, and is erect again all in an instant.

At high tide one day two of the Surf-birds were standing on the sand ridge just above the water resting from their labors, one with its back to the incoming waves staring ahead of it as if lost in reverie. On the beach, one of the silent, solitary Aphrizas would often stand facing me, as if studying me intently, when, though I could not read its innermost thoughts, I had a good chance to note its light forehead and eye line, its white underparts and streaked chest. Two of the droll birds were found one day engaged in an amusing performance that suggested the sparring of boys. One turned sideways to the other as if on guard, then dropped the wing on that side and spread its tail till the white rump showed. The other in turn spread its tail and they hopped over each other, doing this a number of times. They would also dip their bills menacingly, and one of them sat down several times as part of the play. As they flew off they gave their wild *key-we'-ah*.

When wanting to move down the beach one often flew close along under the green wall of the combing surf. When it alit its wings would be held out for an instant showing the clear white line down their length and the broad white base of the tail with the dusky tip. When on shore they stood around so much with their preoccupied dreamy gaze that, when one took wing and flew with swift strong wing strokes out across the surf and over the ocean, a disappearing white spot, you stood bewildered. Your idle dreamer was a child of the sea! Perhaps when it stood on the sandy beach with preoccupied gaze it was dreaming of its rocky surf-dashed home to the north, or of its rocky surf-dashed winter home to the south. How well its wild, keen, plaintive *key'-ah-wee* tells the story!

Besides the large waders, the Godwits, Willets, and Surf-birds, there were flocks of little Sanderlings and Snowy Plover, looking like small chickens on the beach among the bigger birds. The Snowy Plover, plump, squat little fellows with head markings that suggest wide foreheads and backs that match the sand on which they love to sun themselves, when feeding on the beach would hurry back ahead of the foam, their short legs making them more in danger of getting wet than the long-legged Godwits. When resting, the plump little sandy-backed fellows kept by themselves. Sometimes as I walked along above the line of the tide, bits of sand would take legs ahead of me, the brown forms that squatted in my path having been entirely overlooked. When I saw them before they got up, and stopped to talk to them, the confiding little fellows flatteringly sat still or went on fixing their feathers, looking very comfortable in the warm sand. To me they seemed the most winning and attractive of all the lovely little Sandpipers. When they were surprised and ran from me they did it in a comical crouching way as if knowing their backs were sand color and trying to hide their black legs and plump white bodies! Their habit of bobbing the head is doubtless useful at times, but the motion often catches the eye when without it they would not be separated from the sand.

The slender Sanderlings, close seconds to the Snowy Plover in attractiveness, stand well up on their wiry black legs, the pure white of their bodies prettily accentuated by their clear black points—bill, legs, and patch at bend of wing. When feeding, one of them with bill down before him like the other waders, but with stubby tail sticking up over his back, his pretty form reflected in the wet sand, would start and trot fast after a retreating wave as its water rippled out over the small stones. Sometimes when he got a

crustacean he was, with reason, so afraid that some less successful hunter—be he Gull or brother Sanderling—might get it away from him that he would run distractedly this way and that, or start and run so fast you could scarcely see his black legs move until he found that his fellows were attending to their own affairs, when he laid his quarry on the ground and shook and prepared it for swallowing. Sometimes one or two would be seen taking a bath, ducking down and spattering and splashing with as much zest as if they did not spend their lives beside the water.

Unlike the Surf-birds whom you naturally think of as silent and individual, you think of the Sanderlings and Snowy Plovers as talkative flocks. When the tide was high one morning a band of about sixty Sanderlings were resting up on the soft sand back of high water mark making a pretty picture, standing in close serried ranks all facing the ocean as if "in meeting". One by one they started and ran back down the aisles till nearly all had shifted places. Then they rose and flew in a close flock with beautiful evolutions, their changing angles giving changing effects—one moment with wide wings they looked dark; the next, with wings at an angle, delicate as a shadow; then by a swift turn, all white. Flying from you with the light full on them the wings seemed to be carrying a white globe. As they circled and wheeled and circled in a close flock their soft social twitterings added to the charm of the picture. On alighting a large part of the flock ran down to the water together, then turned and ran back ahead of the incoming wave, back and forth till they tired of it, for the surf was high and the bank steep to be running up and down all the time. So they withdrew to the level sand above and stood in little groups resting, some preening themselves, some sitting down with bills over their backs.

One afternoon there must have been seventy-five or a hundred Sanderlings on the beach feeding, resting in social groups, or when flushed swirling out in graceful curves over the water and shore. Once at the full of the moon when the tide was very low and the ocean was a water color of soft shimmering grays and yellows, the surf broke so far out that the voice of the ocean was soft and soothing. Mounds of fresh kelp left by the waves were all tracked around by the birds, and as I looked from a distance across the wide expanse of gently sloping shore, Godwits and white-breasted Gulls stood along the water line and small Sanderlings almost invisible except as their white breasts were lit by the sun, ran after the waves, suggesting pearls rolling over the sunlit sand.

The birds that went over to spend high tide in the marshes, at the turn of the tide would fly back to be on hand for what low tide would bring, and one day I found a gathering of twenty-five Surf-birds, about fifty Godwits, and five Willets standing on the shore with the little Sanderlings ready to go crabbing.

Along the beach there were generally a few Gulls, mainly confusing mottled immature ones, standing around among the waders. One day I counted four Gulls to about thirty Godwits, again one Gull to forty Godwits, and another time one Gull, two Willets, two Surf-birds and about thirty Godwits, on the beach together. Occasionally a Gull would make an unexpected run down the beach for something, and if the water dashed up too close would cry out peevishly and fly back. Among the immature Gulls now and then there was one of the big adult Western Gulls whose snowy head, body, and

tail, and dark slaty mantle, were a great satisfaction in the confusion of dingy mottled ones; but the adults were seen mainly about the piers.

Five small Bonaparte Gulls with the black spot behind the ear were about the beach, exquisite creatures that for some reason made me think of gentle pigeons. As they hovered on spread wings, the black shoulder bars and tail-band of their immature plumage contrasting with their pure white bodies marked them handsomely. Quick of wing, one of these small Gulls hovered over a Godwit that had food in its bill, turning easily as the Godwit turned, till the distracted bird bethought him to swallow his catch. A Bonaparte at another time chased after a Sanderling, but although the small boy with the raft said "the Gulls get too lazy", I never saw them succeed in getting anything away from another bird, and rather suspected that they chased the small Sandpipers just to see them run!

While the young white Gulls of various species sat around the beach with the waders, large dark Heermann Gulls with red bills frequently passed overhead on their way to the pier, at the end of which they would be seen sitting on the water. Long brown streamers of kelp floated close under the surface here, and fifteen of the Gulls were counted in one place probably feeding on something in the kelp. They were often seen standing on the railing of the pier, some of them getting an insecure footing on the electric light globes, while a few of the beautiful white Western Gulls perched on the electric light poles and also on top of a tower. When a school of porpoises passed near the pier, their fins showing as they rolled up above the surface, the Gulls were apparently indifferent; but at Catalina Island when a sea lion had a meal the Western Gulls followed him out to a distance, flying screaming over him.

A few rods from the end of the Venice pier several Cormorants were seen sitting out on the ocean one morning and one flew low and evenly over the surface—its head and neck extended like a stick of wood—casting its shadow over the water. Ludicrous creatures Cormorants certainly are in all their ways of life. One sat on the beach pluming his feathers one morning as I came along, twisting his long snaky neck around so as to smooth his breast and shoulder feathers. He would appear to be starting down the slope of the beach and then suddenly open his wings and hold them out as if afraid of falling on his bill, acting so peculiarly that I imagined that he had been wounded. However, when he decided to go, raising both his big paddle feet at once, he proceeded with high awkward hops down the shore. When he finally got to the surf he let it wash him out and in once or twice, looking so helpless that I was sure he must have been wounded. He also rode through the breaking surf, his body down under the foam, his head held high, clear of it. When thoroughly soused he let the waves wash him in again, and came walking laboriously back up the beach, slim and dripping, his bedraggled tail trailing over the sand. Apparently he had been taking a bath! After oiling his feathers he swam out and dived, staying under so long and swimming out so far that he showed his full aquatic power. When he was in the rollers and saw a foaming breaker coming he would bend over, disappearing as the water splashed. When the waves had flattened he would reappear in the smooth water between seas.

A tame Cormorant often seen along the beach was one of the interesting bird characters of Venice. One day I saw a woman walking slowly behind him with arms extended, driving him down to the water as if he had been a goose.

The next day I saw presumably the same bird coming up the beach toward a cottage, head erect and tail trailing, walking with the mincing gait of a woman with high heels—a droll figure! As he went along he would stop, spread out his wings and flap them hard, again and again, as if to get out the water. Once when resting he stood on one foot, his weight partly borne by his stiff tail, his head twisted around to rest on his well-filled pouch. When a man and a boy came along the lordly bird had no intention of making way, and the man shook his handkerchief at him. At this the affronted Cormorant flew off with an angry squawk and the man doubled up with laughter. Another man, evidently amused by the bird's assurance, clapped his hands to make him fly, and other people passed close by, looking at him curiously without disturbing him.

But one morning as I walked along the beach, to my dismay and horror I came on the pitiful body of a dead Cormorant, its bill tied up in bow knots! Could this have been done in ghastly mirth while he was still alive? Had one of the most interesting characters of all the multitudes on the beach fallen victim to such barbarity? An exhibition that I witnessed one Sunday made it seem possible. Scattered along in small groups down a mile of shore there must have been from a hundred and fifty to two hundred Godwits, when a man and a boy in bathing suits came down the beach, the man sending the child to pick up stones for him and throwing them wantonly at each group of the beautiful birds as he came to it. My lovely Godwits, which it seemed such a rare privilege to watch! With blood boiling I saw the pair go and come, for the man's face was so hard there seemed no appeal. Good training he was giving his child! The next morning one poor Godwit with dangling broken bill and another with a broken leg lying on the sand attested the prowess of man—his noble prowess!

Before this the beautiful waterfowl had been so rarely tame along the beach that they would walk down the shore ahead of me, and every day spent among them was a day of new and rare delights, of intimate pleasures. But now the hunting season opened and each day brought new ravages in the wonderful flocks. Just as the season opened, while I was watching a delightfully tame group containing thirty Godwits, two Willets, a Gull, and two Surf-birds, enjoying their familiarity and their interesting ways, a smart type of city boy appeared, and taking a gun out of a case prepared to shoot my friends. As he was still within city limits I stopped him temporarily by calling his attention to the fact, but I knew it was only a short respite and my only hope for the birds was their apparent recognition of a gun. Two other boys with guns and bags came along later, outside of city limits. At their first shot all but one Surf-bird flew, and at the second shot he fell, flopping distressingly. Before the boy could get him the waves washed him out, out and in, their toy, a limp bundle of feathers; a moment before instinct with life and individuality, a dauntless child of the sea, with power of wing and intelligence to carry him from pole to pole. When the poor wounded bird was picked up its sufferings were prolonged cruelly by the boy's ignorance of the way to kill it. A Coot was found lying on the beach, doubtless discarded by some hunter who had no use for it—now half devoured by horrible creatures of death.

In a few days the beach was like a Soldier's Home, the shooting being kept up from early morning out on the marshes. One day on going up above

the wave hardened beach to the level where drifted seaweed and hummocky sand gave protection and soft resting places, I discovered a large circle of quiet birds. The big Godwits stood on the outside of the circle and next to them about thirty Surf-birds, most of them sitting down, while inside was a close bunch of Sandpipers. It was a beautiful sight! But, alas, a number of both Godwits and Surf-birds were maimed. Poor creatures, turning to each other for companionship in their man-inflicted suffering. Wounded birds were on every side—broken-legged Godwits, crippled Surf-birds, cheerful little Sandpipers stumping around pitifully on one foot, and a poor little trot of a Snowy Plover with one leg dangling, together with beautiful Gulls, one apparently with a leg shot entirely off. This horrid maiming increased until I felt thankful when even the smallest Sandpiper put one foot down before the other and trotted off normally. And when a man in khaki aimed at one individual, picked it up instantly, and killed it humanely, he stood apart as a legitimate sportsman, one who, like the scientific collector, shoots to kill and considers it a disgrace to maim. But to stone flocks of waders, to shoot scavenger Gulls, and murder tame Cormorants—surely the hunting instinct needs education and regulation! Meanwhile automobiles hurry down to the gun clubs with callow youths and pump guns.

When a gunman had driven all my water birds from the beach, one morning I went down the weed thickets between the shore and the marsh, discovering among others a Song Sparrow, a Shrike, a Black Phoebe, a Yellowthroat, a number of Belding Sparrows, and a charming little Tule Wren; also finding the flock of Meadowlarks which had been singing delightfully mornings although it was the last week in October. From the weed thickets I went on down to the sand dunes so solidly compacted that walking over them was almost as exhilarating as walking on crust. At the foot of the beautiful dunes grew queer succulent plants suggesting curls and varying from green to dark reddish, while on the dunes grew various vines and flowers that made me wish for the knowledge of a botanist. The dunes overlooked the marshes which between their intersecting waterways were ruddy with some interesting plant. Small aggravatingly vague Rail-like forms were seen creeping stealthily along the edge of some of the patches of open water and there were hints of exciting possibilities. What rare delight it would be to paddle silently through these waterways and really see the birds and plants hidden there—to sit quietly in your boat and see the great flocks of Ducks come stringing over from the ocean, hundreds of them tired from long journeying coming to rest in the quiet waters of the lagoons! Worlds of birds were there already but too far away for recognition.

Although I could not see the multitudes of birds that frequented the marshes, besides the Gulls and waders who were regular habitues of my strip of beach there were many passers-by who looked in on our shores. A solitary Loon, slender-billed and tailless, was seen swimming near one day, looking in shore with yellow eyes; and a few Terns of different sizes were seen, sometimes plumping down into the water, sometimes flying high, headed over the sea. While looking out over the ocean one morning I was delighted to discover the droll figures of four great California Brown Pelicans coming down the shore. With necks drawn in, huge bills pointing down, and wings flapping, they suggested ancient dwarfs with huddled-in forms. Three more passed down the next morning, such big droll creatures that men on the beach



turned to look at them. Later, when I was a few miles farther down the coast, at Redondo Beach, two Pelicans flew in, lighting wide apart on the water, where they sat with bills folded on their necks, rocking like small boats at sea. Their arrival created great excitement among the Gulls, who gathered around them screaming, and even lighting down close beside them trying to get their fish away from them. At Venice the next day four more Pelicans passed down the shore, flying low over the water in a close row, bills down in front of them ready for action. All four would flap a few strokes, then all four would soar with wings outspread, then gradually all would take to flapping again, then change to soaring, like rowers in a boat.

From the strip of land between the shore and the marsh, one day a strange nasal honk high overhead made me look up. A solitary figure, a pure white bird with black wing tips was flying swiftly across the sky. A Snow Goose! The first I had ever seen. I shall never forget the thrill of that moment.

The Ducks that came to the marshes were seen only at a distance. "There's a Duck!" a woman exclaimed one day pointing to a Cormorant, smilingly, glad to show me what I wanted. But a puff of smoke out over the ocean did turn into a line of Ducks. "They go out over the ocean and stay when the hunters are shooting on the marshes", my bird-wise friend informed me, "coming back when the marshes are quiet". However that may be, when it was raining a flock flew in low over the water.

The only Ducks seen near at hand were three handsome Scaups keeping at a safe distance back of the surf, and great sea-ducks—Scoters of various species. While I was resting on a short stretch of shore without birds one noon, enjoying the lazy swash of the waves, suddenly out on the water between seas three dark Ducks appeared and disappeared before I could focus my glass on them. On reappearing they proved to be young Surf Scoters with white spots at the base of the bill and back of the ear. They rode the waves prettily, sometimes preening themselves as if at home, sometimes rising and shaking themselves, showing the light on the middle of the belly; or, with bills over their backs apparently napped, "rocked in the cradle of the deep" in very truth. They might have been black corks bobbing on the water for all they seemed to care what the waves did to them. But after a short nap they dived, leaving me to enjoy the sparkling surface of the water, the level lines of buffy cloud over the Santa Monica Mountains, a shifting wedge of Ducks that flew across to the lagoon in the marshes, and a flock of slender white Terns that passed spirit-like through the sky.

One day two female White-winged Scoters flew into the rollers near shore with five others that must have been American Scoters (*Oidemia americana*) as they showed no white markings on their black plumage. But most of the great black sea birds seen were Surf Scoters. After watching young for a week I was excited by the appearance of two of the strikingly marked adult males, with swollen bright orange bill, a snow-white patch above it, and an oblong white patch at the back of the neck, the bulging of the swollen nostrils at a distance suggesting the high straight bill of the Canvasback. The family are well marked. The neck patch of the male makes a striking field character, as do the two white spots at the side of the head in the young; while the female, lacking the ear patch, can be told by elimination.

A handsome male which flew in one day was joined by five young ones,

whether recognizing parental authority or not, cannot be told. As he rode the waves several times he put his bill down before him and then threw it up as if swallowing. Two that I startled one day near shore rose and flapped their wings till their big webbed feet showed above the water. A flock of forty or fifty once came plumping down, their webbed feet held out sideways like paddles.

One of the big sea birds that I watched did actually go through the breaking surf prow on, but he must have been an inexperienced or unskillful one who had lost the chance of escape, for none of his fellows ever did such an unseemly thing. It was a pretty sight when, under a gray sky, the beautiful long green rolls of surf rose and combed over and the Surf Scoters came in from the green swells behind to feed in front of the surf and do skillful diving stunts to escape being pounded by the white waterfalls. As the green wall ridged up over their heads they would sit unmoved, but just as the white line of foam began to appear along the crest they would dive, staying under till the surf had broken and the water was level again.

One day a young *perspicillata* had the stage to himself, coming in so close that I could see the peculiar swollen base of his bill. Once he stood up and flapped his wings proudly under the very roof of a combed-over breaker, ducking under only just in time. Often when feeding he would come up as if to breathe between breakers, but once he stayed under from the breaking of one wave till the full rounding up of another, and no sooner came to the surface than he had to duck under again precipitately; and another time he actually got caught in the edge of the spray. After a time he seemed to tire of the constant ducking, and after rising and flapping his wings near shore went back where he could ride the green rollers without more ado, or perhaps he merely wanted to feed from the sea-weed farther out.

A flock of about twenty-five Surf Scoters that I tried to count one morning—some would generally round a wave at the wrong moment and confuse my count—when swimming Indian file, on reaching a certain point disappeared one after the other, doubtless going down to a streamer of kelp under the surface. They were past masters in timing the breaking of the rollers, again and again riding over one the instant before the crest broke into foam. When feeding far out from shore a few of the sea birds would sometimes get widely separated from the rest of the flock and after rising up to look over the water would swim or, if too far, fly across to rejoin their companions.

One drizzly morning when the beach was deserted the Scoters were in near shore. Twelve were so near I could see the two light spots on the side of the head that mark the young *perspicillata*; another time I counted thirty-six all with the white head spots. Fifteen more were out too far to distinguish details. The surf was rolling in, sea after sea, and the great birds rode the green rollers with as much apparent enjoyment as children do the chute-the-chutes! When a squad were down in front of the surf line and the foaming water-fall came, it was laughable to see the row of tails disappear below. A careless Duck once got carried half way up the concave of a breaker before he dived. Another one had a still more humiliating experience. He attempted to round a roller when it was just ready to break and as he was surmounting it, it began to comb over and he was forced to dive at the very crown of the wave to escape being carried down and pounded by the heavy surf! When

diving through the green rollers near shore the black bodies of the Scoters, paddling feet and all, showed as plainly as beetles in yellow amber.

What with the flocks of Scoters and the innumerable, ever-shifting throng of waders, interesting moving pictures were almost always to be seen on the beach. One afternoon when there were a large number of waders, perhaps a hundred and fifty Sanderlings together with Willets, Surf-birds and Gulls on the shore, in the sun path a flock of Surf Scoters were rocking over the quiet green rollers, while in the lower white surf lines, men with long rakes were clamming. A steam launch with tightly rolled sails went hurrying by, and down the sunlit cliffs at the foot of the bay two schooners with square-topped sails lay at anchor.

At sunset another time, as I walked home up the beach breathing in the strong ocean air, the only birds in sight were swirling flocks of belated Sandpipers ever resolving ahead of me. Long straight lines of deep voiced surf were breaking well outside at the low ebb of a full moon tide, the great rollers ridging up behind. And over the gray sea a deep glittering sun path led to a sunset sky that grew and ripened to rich purples—one of the sunsets when a red ball goes down into the Pacific. Long straight lines of deep voiced surf breaking far out at the beck of the moon, following obediently the rhythm of the heavenly bodies—long straight lines of white surf with great gray rollers coming in behind! How big and simple Nature is in all her processes! How microscopic man becomes viewed in the perspective of the orderly march of the universe! And yet while bird and beast blindly follow the laws Nature has laid down for them and live and die as they must, man alone, mercifully or unmercifully controls their environment, man alone can trace their course from pole to pole and try to read the reasons why. And although he in turn fail to solve the riddles of the Sphinx, he alone, humble student of Nature's laws, waiting in the stillness of the forest or listening in silence to the deep voice of the ocean, moved by the bigness and truth of Nature, can choose to try to keep step in the orderly march of the universe.

*Washington, D. C., December 4, 1915.*

## NESTING OF THE BAND-TAILED PIGEON IN SOUTHERN ARIZONA

By F. C. WILLARD

WITH ONE PHOTO BY THE AUTHOR

THE PAST season (1915) has been one in which I was fortunate enough to make a number of detailed observations on several of our local birds, interesting despite the fact that they pertain to common species. Among them was the Band-tailed Pigeon (*Columba fasciata*). During the late summer and early autumn, I was located in the Huachuca Mountains, in Huachuca Canyon, a short distance above the army post of that name. There were a few pigeons nesting in the vicinity, and one pair near camp was watched quite closely from the time the nest was begun until the egg was laid. Nest building was carried on only in the early morning hours, from sunrise till about 8 o'clock. Both birds were present, but the female alone seemed to be engaged in the actual construction of the nest, which she went