ern kingbirds (*Tyrannus vociferans* and *Tyrannus verticalis*), the three orioles, Bullock, Arizona Hooded and Scott (*Icterus bullocki, Icterus c. nelsoni* and *Icterus parisorum*), the last a particularly good example to cite, Lead-colored Bushtit (*Psaltriparus plumbeus*), the jays, nuthatches and wrens, and in fact almost the whole list of nesting birds as I met them year after year, to demonstrate the conclusions arrived at, namely, that it is far more usual for the same pair of birds to remain mated for life than it is unusual.

The nature of these observations is such that they are not capable of scientific proof but they are very convincing nevertheless. One of my most valued notebooks is based on the facts enumerated and bears the title of "Nest census of known breeding pairs".

Farmingdale, Long Island, New York, February 4, 1918.

# A RETURN TO THE DAKOTA LAKE REGION

# By FLORENCE MERRIAM BAILEY

## (Continued from page 137)

## IV. THE GREBE OF THE SILVERY THROAT

A flash of a long silvery throat disappearing in a lake had haunted me for four years, for it had been my first sight of the Western Grebe, the silverythroated King of the Grebes. That was on one of the Sweetwater lakes and now, on my return to them, a distant glimpse of another white throat at the foot of the north lake filled me with hope. So, starting out in the morning, I followed down the shore under cover of the tules, keeping a sharp lookout, bending over in the low tules, but standing erect, well hidden, in the high ones, as they rose above my head. Even when exposed, there was much in my favor, for the birds of the lake had to look at me toward the light and, used to brown cattle splashing and shoving through the reeds and canes, in a poor light might not discriminate between my bent, brown and green figure and the low familiar forms. In the shallow water, in imitation of silent paddling, I waded slowly, keeping my boots under water, and in places where the water was not too deep, set up my camp stool behind a thin screen of waving tule, watching at my leisure, content to let the green rods wave across my glass, if only I could be unobserved.

Of course I was observed by some of the tule population. Two Coots went splashing out into the lake, another sputtered and scolded, and a Ruddy Duck rattled his castanets close by; but a Sora ran his scale unafraid and the birds out on the lake went about their business quite oblivious of me. The only exceptions were due to bad breaks on my part. Once I raised up full height above the low tules, making a passing Crow caw distractedly, and sending three swimmers inside a tule wall. As I immediately took the hint and sat down, the swimmers came out again reassured.

It was a wonderful morning to me, for I had never really seen the King of Grebes before. At the remote foot of the lake, I found his breeding grounds. A high stand of tules rods wide with indented bays and jutting tule points, offered safe cover for nesting colonies, while the Big Ditch, approached by a winding inlet between tule beds, cut the pass, enabling the birds in time of need, bad wind or weather, to shift quickly from lake to lake.

When I first looked across the mouth of the largest tule bay, hoping for a sight of the one white line I had seen before, I started, for not one but four white lines were in view. One slid obliquely forward as I watched, and by this characteristic movement was transformed from a line into a grebe throat. As I watched the bay, one by one other silvery throats came in sight until I had excitedly counted twelve.

The Grebes had evidently had an early breakfast, as, from half past eight when I found them, for over two hours they mostly sat around, resting and preening themselves. Their corner of the lake, the warm south-east corner, however, was a quietly busy harbor. A few families of nondescript inconspicuous ducklings swam about with their brown mothers, sometimes stringing out in single file, cocky Ruddy Ducks were also in evidence, and seven bricky Redheads attracted five others which flew in and lit down with a splash, after which the twelve swam about together. A grebe that came up wet and bedraggled must have been the Holboell, though seen in a poor light that made it look characterless beside the long white-necked Æchmophorus. Gulls and Black-crowned Night Herons stood on posts down the lake, and gulls disported themselves about the pelican rocks that projected from the pass.

But the only real figures on the stage were the snowy-throated grebes. They seemed decidedly sociable, for the most part keeping in groups of their own kind, but sometimes swimming about and preening themselves unconcernedly close to the Redheads and others of their neighbors. From the first, when watching the grebes at a distance, I was puzzled by figures that instead of a long white neck had only a round white breast patch. But finally I discovered that they were grebes whose necks were laid down on their backs to rest! Nine grebes were seen together at one time in front of a brown-topped level tule wall, some with heads resting on their backs, some facing one way, some another.

In different poses they looked strikingly different. Facing you, the knifeblade bill served as the stem of a broad black Y, the crest widening out at the back of the head. When the head was canted over in preening the back, this black was lost sight of, and the effect given was of a perfectly white bird, its neck making a long white loop. The white effect was also given when one facing you rose above the lake and flapped its wings showing their white linings. Two grebes preening their feathers a short distance apart made a pretty picture, now raising their long white necks to their full height, now laying them down as they preened their wings and back-now up, now back, now up, now back; their necks when raised full height looking amazingly long. While in some poses the grebes were all white, in others, back to you, they were all black, the black crest and black line down the back of the neck at a distance in some lights and at some angles outlining a black bird, and when preening, a black hook. When one of the birds turned on one side its breast gleamed across the water, as Chapman's Handbook has it, "like a flash from a mirror", surprising in its intensity.

Two of these Swan Grebes, as they are well called, standing near each other with stately heads held high made a beautiful picture. Once two of them swimming side by side to my amazement reared up full length above the water and with heads raised suggesting white snakes about to hiss, rode the water ominously. At last, dropping down, they paused, and then made a sudden rush through the water! What did it mean? Was it likely that, on July 12, courtship rivalries were still rife? Were some second nests in prospect?

When the grebes were scattered over the lake, their strange raucous calls came back and forth over the water, some grating and screechy, some with a tremolo, as *quaw-kiter'r'rah*, others strident and far reaching, as *kree-wee*, *kree-wee*, or *queer-wee'-queer-wee'*.

After having rested for a long time, at about 10:40 some of the grebes began to dive, but at 11:22 apparently all twelve were resting, heads on back out on the water. When I stood up to start home, nine heads were raised, and a moment later, not a grebe was to be seen. But sweeping the lake with my glass a few moments afterwards, far out on the lake the missing submarines were discovered.

Attempting to take a short cut to shore through a high stand of canes, I found them not only noisy, hard to crowd through, and disagreeably high above my head, but offering doubtful footing between clumps. A strong sulphurous smell such as I had found in places in the sloughs came apparently from springs, on the edge of which my boot came up out of soft mud, turning the water black. Was it in such a place that the abandoned hip boots found by a local hunter had suddenly been left behind? The firm tule bottom, even with water knee high, seemed peculiarly attractive at the moment, and I found myself quite willing to wade the long way home.

The next morning I started back to see my grebes at seven o'clock, but found the tule bays where they had been the day before, entirely deserted. Crossing to the south side of the pass near the Big Ditch, however, I found the twelve out on the lake, which was dotted with ducks. To get a good observation station I had to cross a few rods of open ground, and though I leaned over in bovine imitation, at my approach, a goodly flock of ducks and two Blackcrowned Night Herons rose from a cool, tree-shaded bay. Putting down my camp stool inside a small clump of willows grown knee high with snowberry bushes, I looked through a waving willow screen upon the ducks and grebes; but it was a little too open and the light was wrong to hide me from the lake. Crows cawed over my head loudly enough to inform the entire population and small flocks of ducks rapidly crossed the pass, wings whistling over my head; a Yellow Warbler started to light above me but fled in terror on discovering me, and worst of all, the grebes acted as if they had seen me. Was I really the most conspicuous object on the water front? Would those Crows never hush? Oh for a Kingbird which, as the farmer declared, could "make a Crow hop!"

Out on the lake a flock of ducks were resting, heads over shoulders, and as I moved my glass down their line in counting them, I stopped abruptly, for instead of a dusky oval rocking drowsily on the water, a slender, vivacious whitenecked grebe interrupted the count. Compared to the animated figures of the grebes, the phlegmatic ducks looked positively lumpish, suggesting nothing so much as rows of dark buttons on a card!

As I was two hours earlier than on the previous morning, while some of the grebes were resting, most of them were pluming and diving. When I had first entered my ineffective blind, the grebes had called a great deal, very pointedly it seemed to me, for with long white necks raised they seemed to be looking my way; but after a time their high pitched *kree-ka-ree*, *kree-ka-dee*, *kree-ka-ree*, or *kee-eh-keek* came from both sides of the pass, showing that although I had failed to see them, there were some in the other lake, the two flocks apparently calling to each other.

After these two mornings with the grebes, I went to Stump Lake, but while there the thought of the rare opportunity I was losing worried me until I actually dreamed of the beautiful grebes. Nevertheless, so much had been told me of the great flocks of migrating shore birds to be seen on Devil's Lake that I felt I must go there before returning to the Sweetwaters. An ideal place was found from which to watch them—a stone farmhouse on the bluff above Creel Bay, in the deep, quiet northwestern part of the lake. At the foot of the bluff was a broad beach where myriads of shorebirds had congregated in previous years, but one of the unusual seasons that so often balk the plans of the traveler was experienced here—hardly so much as a sandpiper was seen during my stay.

But here again, my compensations were rich. On the lake in plain sight from the house I found a flock of the white-throated grebes, and during my visit they increased in numbers from twenty to fifty-two! For a week I watched them—not from a tule marsh in water up to my knees—but with my glass from an easy chair on a broad piazza whose wide, woodbine draped arches framed the picture of white clouds and blue lake—spirit lake, as its old Indian name—Mnewahkon—is interpreted; a wide lake of blue and white waters, of shifting, subtle beauty under varying wind, sky, and cloud, affording appropriate setting for its white gulls and silvery-throated Swan Grebes. Where had the beautiful grebes gathered from? As their numbers swelled, I liked to think that perhaps some of my own Sweetwater colony had come to me here.

The grebes did most of their diving in a belt of weed about a third of the way out across the lake, at night generally coming closer in shore; in the morning, as signs of life appeared at the farmhouse, working gradually out again. One night they were heard calling at one o'clock. While I did not keep definite records of their feeding hours, they must have had a very early breakfast, for one day between six and seven I found them already resting, and another day, at about half past nine they were diving as for a second meal. Still another day I noted that after nine or ten o'clock there was not much going on, thirty or forty of the birds resting within a radius of a few rods.

In one gathering of forty-five, all apparently grebes, nearly all presented the appearance of gray ovals with white fronts, their long necks laid on their backs. In certain lights the gray ovals looked black, making black spots on the water. As the necks came up, it was interesting to see the dark ovals transformed by the white erect line. When part of a flock was active, an animated picture was presented, alert looking profiles—long sharp bills at right angles to the long neck—pointing some to the right and some to the left, while scattered among those sitting on the water were active divers coming up or going below. "What's that white bird?" was asked, as a turn hid all the black, leaving a beautiful snowy figure; but at another kaleidoscopic turn, perhaps a black bird would have taken its place; while at a certain angle a subtler effect was given, the white grebe almost fading into the gray water. Very long the divers looked when stretched prone on the surface, stretching out a foot and shaking it behind like a flag waved at the end of a boat.

How expertly Aechmophorus dived! Putting its long sharp bill down gently before it, it would part the water and vanish. Sometimes—most astonishing sight—when sitting on the water one would begin to sink below. When nearly

gone it seemed to give a little shake, probably compressing its air sacs to make itself go completely under water. Sometimes it went below so rapidly that in closing over it the water splashed. One that I saw, sank part way and then dived. Occasionally when one went down, the light would sparkle around its body.

It was fascinating to try to count the grebes when part of them were diving. I had to keep moving the glass back and forth, sweeping the surface of the water, watching disappearing and reappearing forms, watching the swimmers which were changing places, and watching closely to count black ducks when they changed into white-throated grebes. A flock of thirty-two were counted one day, most of them black ovals. Who could imagine that those lumpish forms were the exquisite silvery throated creatures of lightness and grace? At one time the black spots seemed to have scattered out into families, groups of four, six, ten, and fourteen swimming by themselves. Some seemed smaller than others, but at my distance I could not be positive that the smaller ones were grebes.

What I took to be a family of eight were by the shore one day, amusing themselves. Two or three of them acting as if they wanted to get up on some of the high stones along the beach, stretched their necks and put their bills up over the tops of the stones, but gave it up as if it were too high a step. One of them playfully leaned down and poked his bill at a brother, when the brother swam ahead out of his reach, leaving a beautiful glittering wake. Two out on the lake stood close together, their heads held high, green weed dangling from their bills. The long streamers seemed hard to manage but by throwing them up by a quick toss of the bill, they were finally disposed of.

After a series of loud grebe calls, as if one had cried, "Here's weed, come on in," parallel lines of white spray showed a party of grebes running splashing over the water, as an interested onlooker from the farmhouse piazza commented, "going some!" One ran splashing for a long ways and then rose and flapped its wings. When another swam, gleaming light broke around its body and its wake behind. Once hearing a kr'ree, kr'ree, I looked down and discovered two of the distinguished looking birds moving their heads and necks around. Both rose, as the two others had done before, and, side by side, rushed through the water; after which they dived. Perhaps the bath restored their tempers, for when they came up face to face, they began peaceably preening their feathers.

When watching the grebes through the glass, down the high bluff and off over the lake, focusing on a seated grebe I was given a bewildered feeling of space and moving water by having a gull or tern fly into the disk of the glass and swoop down between me and my bird. Floating between water and sky the white terns and soft gray gulls gave a new sense of motion and depth to the picture.

There was an ever shifting panorama—gulls and black and white terns wandering through the sky, strings of ducks winging their way to some distant point, and black, long-necked cormorants flying low over the water to or from their nesting islands—all serving as background for the silvery-throated grebes which, wherever they appeared on the lake became the center of interest. The note of the white Common Tern was one of the principal sounds in the air, its purring ter'r'r'r contrasting with the compelling kray-kree, kraykree, and the high pitched  $kree,ee\_kr'r'ree-eek$  of the grebes. About thirty of the red-billed black-crowned birds were seen sitting on the edge of a sandspit one afternoon and they were often seen at sunset getting food from the lake and flying off with it in their bills high across the woods in the direction of a large grassy slough where they doubtless had their nests. Bands of Black Terns also passed across toward the slough.

Franklin Gulls, mainly spotty-headed immature, were seen mornings close along shore, wading up to their wings or swimming around in shallow water. dipping down to pick insects off the surface, dipping forward till their heads went under water and their tails tipped up; or, on occasion, standing in front of a pile of foam that had blown in shore, picking daintily from its soft masses. In the afternoons the gulls were generally out on the lake. In sweeping the lake with the glass I would locate the flock of grebes or individuals scattered out over the water by horizontal flashes from the white grebe breast or by the white vertical lines of the neck; while the white lines of the necks of the gulls. sometimes found swimming around in such close neighborhood that they had to be differentiated from the grebes, were shorter and wider; moreover, the gulls, riding high with wings tight at their sides and tails up at an angle, were always veering around as if set on sensitive pivots-often making a smeared reflection, they veered so much-while the grebes riding low on the water, their bodies making compact ovals, rode steadily. One black-headed adult gull, acting as if trying to lead out a band of immature, faced them and then turned and swam ahead, looking back as if to make sure that it was followed.

Out among the silver throats one day, a dark duck, apparently a Whitewinged Scoter, appeared, swimming rapidly through the flock making the grebes turn to look at it. Old ducks and their broods, notably scoters and golden-eyes, occasionally swam up along shore feeding and resting on the stones along our beach, and a Holboell Grebe with one young was seen several times swimming and diving near shore. There was also a solitary red-necked Holboell, probably the father, which, while the white-throated Grebes possessed the lake, 'walked by his lone.' When a King of the Grebes passed near him one day, he lowered his head as if recognizing superiority; but perhaps it was merely the nine point superiority of possession!

Cormorants were often seen singly or in small numbers in the mornings coming from their breeding islands out on the main part of the lake where earlier in the season we had seen some twenty-five of their flat stick nests variously occupied by greenish eggs, skinny emerging nestlings, and larger black velvety young with orange gular pouches, waving black necks for food. During the day cormorants were often seen in our cove-Whipple Cove-below the bluff. Several times, on looking down from my height, to my surprise and amusement, above the surface of the water I saw a pair of great, wide spread black wings, like giant butterfly wings, the droll birds sitting on the water drying them. When they were bathing, I could sometimes hear them splash their wings under water, after which they would rise and flap them in the air, opening them wide, and holding them out, like wired wings on a hat. When they rose to fly they splashed noisily and then with loud flapping, with convex figures-head and tail held low-they would make a wide curve out into the middle of the bay, to get headed for the islands; for though powerful fliers they were sadly lacking in the flexibility and dexterity of wing shown by their white brothers of the air. Seven were seen in line one night, a black file flying high toward their islands, their long pointed wings looking prong-like on their.

downward strokes. On they went till they passed out of sight down the lake through the channel between the long slender spits at the mouth of Creel Bay—beautiful spits that, when the sun struck them looked like slenderly pencilled points of gold.

When the ducks and grebes were close along shore, I often went up on the tin roof to see them better. While there, at different times, a family of Chimney Swifts burst out of the chimney and flew around chattering, the roll and *wuck-up* of a Flicker came from the third story roof above and two young were seen chasséing and then standing on the ridgepole, their spotted breasts showing against the blue sky; young Baltimore Orioles were heard teasing for food, an Arkansas Kingbird, known as the "yellow breast", passed, and the whitebreasted flew by carrying straw; a Wood Pewee returned to its dead branch with a shake of the wings, a young cowbird on the ground opened its bill entreatingly to a sparrow; a White-breasted Nuthatch and a Clay-colored Sparrow called; Song Sparrows, Maryland Yellow-throats, and Warbling Vireos sang; a Goldfinch rollicked by, and a Mourning Dove sped past; while two cuckoos answered each other from the woods either side the house, and a Yellow Warbler flashed yellow over the green lawn.

From the crest of our bluff there was a wide view, not only of the blue and white water of Creel Bay, with its widely curved, wooded coves and its long jutting points; but out beyond the points, south across the main lake to the softly purpled sides of Sully Hill, an old terminal moraine left by the retreating glaciers. Here, appropriately enough, another relic of the past, the buffalo which had roamed the lake shores and all the wide surrounding prairie, killed off in wantonness, was now with elaborate care to be reinstated in a National Park. So too, the Indians, belittled contemporaries of the buffalo, after outliving them and collecting their bones from the prairie, were now, with elaborate care gathered for education at the Industrial School at Fort Totten, at the foot of Sully Hill.

Reminders of the early hunting days of the Sioux and Chippewa were seen at the farmhouse, where there was a pile of stone hammers and hatchets mostly plowed up on the farm. In one of eight large Indian mounds on the place—excavated by the National Museum—I was told that a Burrowing Owl, here at the extreme eastern limit of its range, had nested in an old badger hole. Another bird at its eastern limit, the Magpie, had also been recorded here, two individuals having spent a winter in the barnyard of a neighbor. One of the historic relics of the region was to be seen on the opposite shore of Creel Bay, the skeleton of an old passenger and freight boat used on the lake by one of the earliest settlers when the water reached the site of the present town of Devil's Lake.

Boats were frequently seen going and coming from the Chautauqua dock across the lake, row boats, motor boats and sail boats; and once a short race was seen between two of the pretty white-winged sail boats. When the motor boats, their sides sometimes glistening like the side of a grebe, made their eveuing trips up the lake, the grebes watched with heads up, heralding their approach with far-reaching alarm calls, and diving and swimming over to our cove out of the way. Sometimes when the boat had retreated the birds would call and swim out again, but boats of any kind filled them with terror; and perhaps that was one reason why they felt safe at night on our undisturbed side of the lake. Near sunset one evening, the light rested on the wooded eastern shore of the bay, yellowing the points extending out into the water, while the dark shadows of the trees in our cove gave depth to the picture. A beautiful sight was seen one morning from the crest of the bluff overlooking our cove --a large flock of Franklin Gulls hined up along the shore with the light on them suddenly burst away, gleaming white over the dark water.

Another morning, fog obscured the lake, obliterating the long spit and almost hiding the woods of the opposite shore. At the foot of our bluff was seen the old mother Golden-eye, and near by a Franklin Gull, standing on one foot on a stone preening its feathers, its dimly suggested reflection contrasting with reflections under a clear sky, when the black head of a gull or the white throat of a grebe would be perfectly mirrored. While the lake was hidden, a large flock of Franklin Gulls straggled by close to the house, and others drifted along the shore. A Kingbird giving chase apparently tweaked the feathers of one and made another suddenly veer with a complaining cry. When the fog first melted back from the opposite shore so that the green of its woods and grass, together with the buffy grass of the spit came out, the sun illuminated four white necks so near together that as the birds swam slowly along they were seen as four dots within the circle of my glass, gradually approaching the outer rim, when a mirror-like flash came from the breast of one of the swimmers. Soon six grebes were seen slowly swimming toward the sun with the light high on their throats, after which the second spit came out of the fog and the sky was blue over all.

The purring ter'r'r'r of the tern, and the strident kr'ray-kree, kr'ray-kree of the grebe were heard, and eighteen spots were counted on the water in the same belt of weed. Later, when the gray water was all a'sparkle, a gray gull sailed about over it, but no black dots could be seen except with the help of the glass. Another time when the water was dark, the grebes were white dots, and white terns flew around projected against the dark background. Once when the lake was still and white, the black pin heads were scattered out well apart over the water. When separated in this way the grebes kept calling to each other, for they are eminently social birds of close colonies. During rain they were also heard calling, and after a stormy night, when they were unusually quiet, I inferred that they had been broken of their rest.

In this Bay of the Grebes, beautiful motion pictures were constantly being thrown on our screen, especially in morning and evening. One night a glorious golden sunset made a water color of the lake, a small herd of cows wading along the opposite shore glowing red in the warm light. Suddenly the wind shifted from south to west, and the wide smooth lake ruffled in streaks that grew into long feathery white plumes. One morning at six o'clock the lake was so calm that the wooded shores of our cove and the opposite side of the lake were reflected so clearly that it was hard to tell which was woods and which reflection. About half the grebes were along our shore, the rest in the smooth water along the other side of the lake where they were white spots with short lines behind them. As the nearer ones swam, the line turned to the full wedge of the wake. One near shore was reflected charmingly, every move of its long-billed head and silvery throat being mirrored.

There was another morning of exquisite reflections and delicate water effects. Four long-billed, long-legged sandpipers were running along shore in duplicate, one very small one trotting off, as if in apology, in the opposite direction. A cormorant flew, closely mirrored in the lake. The sun flashed from

the silvery throat of a grebe. Whenever a bird moved on the water, he started a series of circles. The Franklin Gull, pivoting around, made a series of circular ripples, while a diving grebe made a double series, one set for body, one for bill. A grebe was also seen riding with concentric rings ahead of it.

When my week on the lake was over, I realized what would be the delights of a close intimate study of a nesting colony of these original birds; for while my study had been a long distance one, it was enough to fill me with enthusiasm for the rarely beautiful birds—the Grebes of the Silvery Throats.

# (To be continued)

# SOME OCEANIC BIRDS FROM OFF THE COAST OF WASHINGTON AND VANCOUVER ISLAND

## By STANTON WARBURTON, JR.

#### WITH ONE PHOTO

D URING the summer of 1917 the writer, through the courtesy of Mr. E. A. Kitchin of the Glacier Fish Company, was able to take a trip on one of the company's halibut fishing boats. One week, from June 26 to July 3, 1917, was spent fishing on the Pacific Ocean off the coast of the state of Washington and Vancouver Island. As I had very few duties connected with the boat's routine, most of my time was spent in observing and collecting birds. The boat was a gasoline launch about sixty feet long, with accommodations for ten people. One day was spent opposite Grays Harbor, Washington, and the rest of the time in the vicinity of Vancouver Island. The boat carried a liberal supply of ice in which the fish were kept, which made it possible to take good care of the specimens collected. Luckily the weather was excellent, so good in fact that all birds shot were very easily picked up.

The captain, Joe Magher, was very much interested in the work and did all in his power to make the trip a success. Many of the specimens could not have been secured but for the interest he took and the trouble he went to in collecting them. The crew also were always ready to help me in any way, and went to considerable pains to keep my specimens on ice.

On Tuesday morning, June 26, we left Tacoma, and arrived at Cape Flattery, Washington, on the morning of the next day. Here the Tufted Puffins (Lunda cirrhata) were very common and exceedingly tame. The presence of the boat did not seem to bother them in the least; in fact, most of the time they only swam out of its immediate path. The California Murre (Uria troille californica) was also quite common, but not as much so as the Puffins. The California Murres were always seen in pairs; one pair was collected.

On Thursday, June 28, about thirty miles west of Grays Harbor, a pair each of the Sooty Shearwater (*Puffinus fuliginosus*) and Pink-footed Shearwater (*Puffinus creatopus*) were collected. Both species were quite common about here, many flocks of each being seen; but perhaps there were more Sooty Shearwaters than Pink-footed. While in flocks they seemed rather wary, but when single birds were encountered they were very tame. They were feeding on the fish which the fishermen left as worthless, these fish, caught at a great depth, be-