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AQUALUNG DIVING

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Much has been written about the mechanics, the dangers, and the thrills of aqualung diving by authorities such as Costeau, Diole and even Clare Booth Luce. Every purchaser of a "lung" is given a booklet explaining in detail the "thou shalt and the thou shalt nots" of this rapidly developing hobby. Mainly they are advice on how not to get into trouble below the water's surface be it pond, lake, river or sea. Those interested can read, take courses at Y.M.C.A's or Y.W.C.A.'s or go out and learn the hard way by doing.

What the average person wants to know is "How do you feel and what do you see?" down below, the emotional and physical reactions of a diver, which is what we will discuss here along with a little physiology and psychology to help explain the "feelings"

First of all we should dispel the awe held for divers by the average person —
the "He's a diver therefore a hero" attitude. The diver is just another Joe Doakes
with his head under water — no more, no less. He is an average to good swimmer who
has stepwise, in shallow water, put on and got used to a mess of paraphernalia which
taken in one gulp would scare a person to death — fins on the feet for propulsion,
mask on face to allow you to see, lung and tank to supply air, and finally a balancing
lead belt of just the right weight to sink you very slowly in the water. Above water
it is heavy, awkward and rather horrible looking, in the water it weighs nothing and
looks don't count. For a while you are conscious of all of it dangling on you then
it becomes rather like clothes — commonplace and almost nonexistant so long as the
equipment fits you comfortably.

Now as to the person himself — I would definitely advise persons who get uncontrollably panic stricken in caves or small tunnels not to dive. Claustrophobia is common to all; it is the panicky type I am warning not to try diving. If great heights panic you unreasonably, forego diving, since sooner or later you will meet a situation of going over an underwater cliff drop off from shallow water into the purple depths. Again I am referring to unreasoning panic, not good healthy normal fear. In this day of aircraft travel a person afraid of high buildings or cliffs has been conditioned to height in aircraft and is frightened a bit but not panicked. These two panicky fears are bad companions to take down with you if you can't control them by reasoning with yourself and a little will power.

As to physical requirements -- any one not suffering with T.B. or coronary disease and capable of walking a couple of city blocks without having to sit down, can dive within reasonable depths, say down to 30 or 40 feet. For any deeper dives youth and physical conditioning are advisable. Fat, short necked, paunchy or florid persons in the 40's and 50's would be advised to consult their physician before indulging. Anyone

in good physical shape from 10 to 60 years can enjoy the sport. Plugged eustachian tubes of the ear, bad sinusitis, or broken ear drums all put limits on diving, as will gas pockets in teeth or other bone structure but in general, normal physical condition is all that is needed.

The procedures in learning to dive should be stepwise -- first use a mask and snorkel in shallow water until they are comfortable and occasion no trouble. Then get a set of fins for your feet and use them till they become habitual. Fins are awkward on the beach and are hard to work with in water when there are currents or waves and one tries to walk on the bottom. The answer is don't walk any more than necessary. Swim with them and you have great power and control no matter what the surf or current conditions may be.

Then you can start playing with the lung, tanks and lead belt, with some degree of confidence. Here is where the classes at Y.M. or Y.W. come in. We'll assume to save time, you've gone to them and can handle yourself and the paraphernalia in a tank.

Comes the day to go out into the "Bright blue yonder" for the first dive. You are excited, scared and anxious to get going all at the same time. That scared feeling leads you to check everything once again just to make sure all is in good working order. Don't ever get over that scared feeling — when you do you'd better quit diving—for it leads to normal caution and keeps you from making foolish mistakes, such as going in with the air tank valves closed, empty tanks picked up by mistake and rarely, but very rarely, a bad lung.

Having gotten all the "stuff and things" checked and finally put on -- comes the big moment. Over the side you go in great awkwardness. You hang onto the gunwale of the boat, breathe a few exploratory pulls and find all is well. Right here you can save some air by removing the mouthpiece and doing some deep free breathing before you go down. The cold water shock and excitement have you puffing away like mad for a couple of minutes. Breathe air and get over it before you start pulling on that expensive and limited supply of tanked air. Having calmed down, re-insert the mouthpiece, shove away from the boat, exhale to deflate your lungs a bit and you are on your way down. By sheer sinking, you don't need to dive or swim down. When you get to head down position you can breathe in and lo! your speedy plunge toward the bottom slows to a halt. Empty your lungs and down you go; breathe in and you hold your position.

Wonderful; saves work in trying to get down!

All of a sudden you come to -- whoa, "I'm in shark country, giant octopi, etc" -- you go to looking around for these enemies -- oddly enough you don't see any and chances are, in Hawaii, you never will. I've seen only one shark in five years of it and he was as scared or more so of me, submerged, than I was of him; he took off right now -- "vitement".

What we do see below is a pale pastel blue-brown bottom way below -- no particular fancy reef or cave topography and on all sides is a stretch of pale opalescent blue-gray haze of water with a few fish playing about in "midair", darting into little holes, or chasing each other. We'd better get on down for a closer view. So we exhale and take the "elevator" down, head first. Now you get the flying feeling you have sometimes had in your dreams, or under opiates in the hospital. It is what you expected on your first aircraft flight and didn't find -- utter weightlessness, utter freedom to change direction by a twist of the rubber foot-flipper or the hands, or the head for that matter. Just a big bird sailing down through space.

All of a sudden you have an earache, plus! So you stop, breathe for a while till you get a squeak in the ear -- no pain any more, so down we go again. While you were stopped you looked over and saw your buddy on his flight down -- following him his silvery mushroom-shaped exhaust air bubbles in an intermittent column. It suddenly dawns on you it is not silent, there are great rumblings as your air or your buddy's

comes out, rises and explodes, rises and explodes, every ten feet or so. You can hear millions of clicks like typewriters going -- barnacles and shells do it -- that's the boat and anchor chain over your head and up quite away now. Then you hear grunts and squeaks of all tenors as you hit the bottom (like a puff of down) those are fish talking you over in their various lingos -- they don't particularly care for you and say so in no uncertain terms.

We're on the bottom -- like that puff of down we just settled -- no bumps or leg bending shocks. Now that we are down, the bottom isn't so flat, it's all cut up into swales, knolls and flat bottomed sand pastures. About us we see brown-green weeds and purple and livid green cauliflower heads of coral with fish of all sizes and colors playing around, or looking you, the interloper, over. Again the "shark, eel" shoots through the head and your diaphragm tightens up. You go to spinning around "looking in all directions at once". Nothing to get excited about in sight, so you calm down and give a tentative kick or two with your fins and wonderful to feel, away you go like the fish, so easy, and so graceful, and so free.

Just about here is where the thing gets you -- you've been down ten minutes under pressure, remember. Suddenly you realize you are brave as they come -- bring on the sharks or whatever -- you can handle them -- you really are free now. Right here you get hep to yourself or you'll do something foolhardy. The trace of excess CO_2 in the system which you hold under the extra pressure, in your blood, has given you what the psychiatrist will charge you for in treating anxiety neurosis up top -- the extra CO_2 cuts down on your fear like a drug and it's a great sensation to "just not give a damn". Watch yourself and go on and enjoy it, within reason of course, for the reat of the dive.

Right here I'm going to leave you on the bottom to explore, chase fish, upend coral for shells, or just plain "lollygag" on the sand for a while.

Slowly you notice your mask is pulling into your nose a little more on each breath—it's harder to breathe fast — though a slow long drawn out inhalation is okeh. You've had it — your air is almost gone and it's time to go up while you've got some left for the slow climb back upstairs. By this time your emptying tank is also tugging on your belt strap trying to go up and take you with it. Now is the dangerous part of diving—you are brave, feel good, and if you don't watch it you are going to go up too fast.

You exhale some air, look up and catch some of the cloud of little bubbles in the column as they zigzag their way up and follow them up at exactly the same speed as they go. Exhale as much as you can, inhale only enough to keep from stifling. You may have to kick with the flippers to go up, exhaled so empty, but that is all right, just don't get carried away and come up fast. You're loaded inside like a bottle of soda water with gas that you've got to allow to come out of your blood, out of the hollow sinus bones of your body and out of the fat if you have any. It's in solution like soda water gas and it all doesn't fizz off at once, and if it did it would rupture the alveolar lung tissues or put a gas bubble into the blood stream, and kill you or later give you the bends.

You feel so fine that you don't know the real threat of death in diving is now operating. If you follow those slow little bubbles up to the top you will arrive in A-1 condition from 65 feet down or less -- Below that you'd better read the books or better still just don't go till you've had some experience in shallower water for some time. Carelessness on the ascent causes your getting killed or crippled in diving. On the way down you have earaches and other pains, but they are not the killers, they are just "go slow" signs. On the way up there are no signs!

Now as to real dangers -- sharks are all over the ocean and in muddy water strike at sounds or vibrations -- I just don't dive in muddy water. They are surface carrion or garbage feeders. Up top, swimming around on the surface you'd better keep an eye peeled but down below, they can be counted on to keep their distance. The great mantas

are lonely creatures and are looking for a buddy and will come right over to you, and stay there, too! They are whoppers, in many cases twelve feet across but they are not toothed, don't have a "stinger" and about all one could do is knock you looping with their great jet shaped wings. I have known one off Waianae that actually met me on a series of dives and hung around the whole time I was down. Got so I missed him when he finally didn't show up. (named him "Oscar")

Porpoises are hard on sharks so they relieve one of worry about the sharks when they are around, but I've always stayed down when they are passing overhead as they might just mistake me for a shark and ram me to death as they do the shark. A 600 or 700 pound porpoise at 60 m.p.n. could really cave you in. You can hear them playing above and talking it over in a high "suckling size" piglike squeal, almost out of human ear range, it is so high-pitched. All of the octupi I have met have been 12 feet or under and more scared of me than vice versa. They are highly intelligent for a sea animal and can inflict a bad bite when they can turn upside down and get their "biters" into action. They can be rather readily scared into a completely helpless nervous breakdown by the proper heckling. The big ones from the depths I haven't run into. Period!

The moray eel is the nasty boy on the bottom, and he gets big! Looking like a snake, he scares many people unduly by the similarity. So long as he can get his tail anchored in the rocks he is a nasty individual, but when out, free swimming, he also gets scared, and takes off 90% of the time in a blind "rock crashing, head-on collision" panic. Two have attacked me under these conditions and had to be disposed of by one swift well-placed swat with my "jimmy bar" shell pole. To kill or incapacitate an eel you don't hit his head, there is nothing much in it. You've got to get him out where you can hit him on the spine about 2/3 of the way from his head to the rear, almost over his anus. That is where his sacral plexus is located, and his major movement brain center. Hit here, he can still bite like mad, but he can't move to chase you or get away, and you can pulverize him at your leisure. Swimming less than 2 feet from a cliff face before looking it over for eels in the holes, is a darn poor policy, as they will grab passing objects first and then investigate the size or edibility later. They can really cut you up!

To get away from the world; to get up a head of steam by a bit of fright occasionally, or to get in some wonderful scientific investigation I know of no better way of spending a good sunny afternoon.

I have left out of this brief paper a lot of things, not too important, really, that you see, feel, or have happen -- if I put it all in there would be nothing left of the feeling of adventure which you have the right to find for yourself on that first and second dive, and this paper would go on forever.

SHAHMIE (Conclusion) By Alida Chanler

In February 1956 I finally succeeded in getting a female shama. Her tail had been broken off in transit; she was very hungry and expected to be fed grated carrots. She hopped right back into her cage when I let her out. From this I deduced that she had been a caged bird for quite some time and would need re-educating for the life of freedom here.

Shahmie landed on the edge of her cage, tail up, singing purple finch songs to her, and she cuddled up and sang back. It was as if she were saying: "I never hoped to find you, I had such a terrible time." Shahmie flew out to his pepper tree after a while. After closing the transom we released her on the porch, where she flew up to a bamboo

perch near the ceiling. In a few days she was sufficiently at home on the porch to fly around there with Shahmie, but he still spent most of his time under the pepper tree.

At full moon time, March 3rd, Bill carried Pinkytoes out in a small cage, placing it on top of a stepladder in front of the arbor. She hopped out and spent the day on the arbor or under the big date palm where both she and Shahmie caught termites rising out of the sandy ground. But at dusk she did not know how to return. The first Pinky had explored the area beneath and around the transom after she got out, and so knew her way back. This one having been carried out in a cage, bumped on the wire screens, as she had no orientation toward the transom. When Shahmie flew in to roost, Bill had to put the cage down beside her where she waited on the gravel. She hopped into the cage, and was carried in to roost, as usual, on the picture-frame. Next day she showed greater friendliness to us than ever before, hopping toward us where we sat on the porch. A day later she flew out through the transom herself and landed on hibiscus bushes, where at dusk she fell asleep. Bill found her after dark, and carried her in his hand to her cage indoors, from which she flew up to roost on her picture-frame.

(Ed. note: Pinkytoes required considerable training before she was able to find her way in through the transom. But lured by mealworms she finally learned, and that problem was settled.)

Now that Pinkytoes was out all day with him, Shahmie wooed her with song No. 9, which he used for the first Pinky also. On April 20 Pinky put her head into the bird house, then hopped inside it. On the 21st and 22nd she picked up Australian pine needles, flying back and forth to the bird house all morning as she built her nest. Shahmie sang wood thrush, bobolink and No. 15, while Pinky sang around the bird house. They came in for worms, then left together to rocst in the banyan, as the full moon rose across the bay.

Next morning Shahmie sang 11, one of the more spectacular love songs, while he guarded the bird house when Pinky went for worms. Meanwhile a thirsty squirrel attemped to drink at the fish-pond only to be chased off by Shahmie. The feeding station is on a pipe similar to the one the bird house stands on; we found that southern squirrels can climb such a pipe, and we had to stop them with a metal guard. Bill put a guard under the bird house, but meanwhile Shahmie attacked the squirrel every time he comes near, even pecking fur off its back. This continued until dusk, when both our birds sang in the swamp land until chuck-will, night hawk and screech owl took over. Before chuck-will had ceased in the foggy dawn Shahmie was singing again.

Pinky sang the bell-note of baby birds to me on the porch, April 30, 1956. It was her way of saying she had laid an egg! A mockingbird challenged Shahmie, so he retired to the arbor and there stood his ground. Pinky sang the baby bell-note again the next day, while Shahmie and mocker sang simultaneously. Shahmie sings lower, on the whole, and does not repeat his patterns as does mocker. It is Shahmie's great variety of song that makes it worth while to report what he sings.

By May 5th Shahmie was so taken up with guarding the bird house that he became silent after singing 15, although mocker continued to sing through the heat of the day. The mocker tried to sing on the arbor, but was quickly dive bombed; Shahmie's territory was quite definite there. He was almost nine years old, and a mocker was testing his fighting ability!

By May 12th Pinky was taking insects to the bird house to feed the young. After a few days she carried worms to the bird house. As Shahmie greeted her at the transom she answered him with a lovely song. While she took worms and insects to the babies, he sang nesting song 10 in the sizzling heat. We added tiny worms from the beetle breeding box to the pan full of worms now on the porch for Pinky, and Shahmie took

these to the bird house. The sandy soil is poor foraging for insect-eating birds at nesting time, especially for ground feeders like our birds.

Heavy clouds over the mainland brought strong winds, but no rain. Pinky ducked out of the bird house, dropping to the ground beside the date palm and arbor, to escape the force of the wind. She appeared frightened. She never returned to that bird house, leaving Shahmie to feed baby bird, for there was only one.

Bill put up a ladder to see baby bird; she was brown above, golden tan below, and had yellow edges to her dark beak. Pinky rested indoors for the first time since her freedom; from the porch she watched the wild birds at their feeding station. Soon the baby bird was calling the bell-note, which Pinky heard in silence. On May 23rd baby bird followed Shahmie when he flew off after feeding her. She dropped from a live-cak to the driveway, where Shahmie saw her, and flew over to look at her. He went back to the bird house twice to see if she were still there, then stuffed a bug down her open beak, satisfied that this was, indeed, his daughter. Next day Shahmie took her to the jungle to the north, where the first Pinky had taken her two babies. This was within hearing distance of the new nest Pinky built in the bird house on the garage wall, and so he could fulfill his double duties. In the banyan Babybird said "tack" quite audibly while preening her wings and little bit of tail. She is fluffy and cute. On May 26th a hundred mealworms had been taken, chiefly by Shahmie for Babybird; the total was 140 the day before.

Several letters during the summer while we were north told us that the birds were all right. When we returned in October we found plenty of evidence of their having been on the porch, but no birds. The nest in the garage contained one broken egg shell, so there was at least one baby bird from the second brood. I hope it was a son! The birds were last seen in the middle of September before moulting. Shahmie was seen once in October; he must have gone south with his family. By the middle of October the duck hawks migrate through here, and it would be easy for such a bird to pick off a family of smaller birds feeding at the transom. That is probably why Pinkytoes and Shahmie took the young farther south to better feeding grounds. We played our record of Shahmie's songs but got no response. Wouldn't it be nice if this family found the 1953 family along the way! Perhaps they will breed where insects can be found all winter; I hope this may be in south Florida.

In summarizing, it seems to me that several factors contributed to Shahmie's quality. First his ear for music, together with the lower pitch of his whistling which permitted us, as it were, to converse with him in his own language and to contribute music he appreciated through radio and records. Second, the bird records gave him a contact with the birds of a land otherwise alien to him giving him a sense of belonging. Third, our response to him was based on careful observation of his needs, so that we failed him less and less as we were able to give him his freedom and a mate. Fourth, his ability to orient himself in flight allowed him to profit from freedom about the house and in the garden, as few pet birds are able to do. Fifth, his memory of the things he enjoyed in our world, especially music, and our response to him and his use of mirrors to replace the need of seeing other birds. This memory gave him the homing interest to return to us from the wild after months of freedom, and enjoy being indoors. These five factors place shama thrushes well up in the scale of evolution. I might add a sixth, of which I am not so sure: his desire to please us went beyond the need of receiving food at our hands. He showed a sensitiveness to adjusting to our demands of him that amounted to conscience. This ethical sense is surprising in a creature unrelated to man by any evolutionary bonds closer than those of our common ancestry in fish. It suggests that evolution leads to ethical perception by whatever path it rises. This is a philosophical idea which I cannot prove, but nevertheless feel is true. Where there is communication of feelings and musical ideas, there is also mutual adjustment which amounts to an ethical sense of responsibility. Dogs have this, of course, but dogs are mammals, hence the wider range of ethics revealed.

Since shamas exhibit to a greater degree what can be seen also in other birds, the above factors really refer to many of our wild birds. We have noticed that since our relations with Shahmie were observed by native birds, these understood that we like birds and that we like to talk to birds, or whistle to them, and as a consequence the local birds who live in our garden respond and even call to us as we pass, as no wild birds have done anywhere before. Chewink towhees speak to Bill each time he walks out to get the morning paper, near their domain of palmetto. Similarly the red bellied woodpecker, who used to live in a dead slash pine, and has now dug himself a hole in a dead Australian pine along the avenue, sticks his (or her) head out of the hole when Bill says "Hello churr-churr", and replies with his churring call. This happens regularly every day, as does the cardinal's hopping close to the transom to say the seeds are all eaten up.

But shamas remain the most responsive of all, and as such, they deserve better treatment than being trapped and caged. They should never be caught and transported out of their own forests. Whether or not their free existance in Florida would threaten the normal dominance of mockingbirds is a moot point. Except for worm-like grated carrot, Shahmie never looked at food that did not wiggle. This may have been because he was never starving. Mockingbirds and catbirds and robins change their diet to include berries when insects or worms are unavailable: in winter in Florida the palm berry, myrtle berry, red cedar berry are eaten by insect-eating birds. But not by our shamas, who depended upon us to supply them with worms. One does not know whether flocks of shamas might not also learn to eat berries in due time. But as of now, our few little birds have only a slim chance of surviving in Florida, a better chance in Cuba -- provide they can negotiate Caribbean waters.

The End

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HOMING OF LAYSAN ALBATROSSES

The Jan.-Feb. issue of <u>The Condor</u> contains an article by Karl W. Kenyon and Dale W. Rice, entitled "Homing of Laysan Albatrosses". The article describes experiments conducted at Midway, where 18 adult Laysan Albatrosses were removed from their nests on Sand Island and sent by air to distant parts of the North Pacific Ocean, some of which are outside the normal range of Laysan Albatrosses. Of these 18 birds, 14, from six localities, returned to their nests. The greatest distance was from the Philippines, 4120 miles, covered in approximately 32 days. The bird released at Whidby Island, Washington, made the greatest speed, covering 3200 miles in 10.1 days, an average of 317 miles per day. The birds were banded with a colored band, as well as the usual Fish and Wildlife band; the white plumage was marked with red dye, and nest sites were visited regularly to ascertain as closely as possible the exact time of return. Apparently the homing instinct is strongest during the incubation period, as the birds removed from nests containing young were slower in returning than those removed from eggs. The authors say of the bereft young "most survived the temporary absence of one parent".

FIELD NOTES:

Field trip, March 23, 1958, West Loch of Pearl Harbor and Salt Lake.

Audubon members and visitors numbering nineteen arrived at the West Loch of Pearl Harbor about 8:45, at half tide, for a view of the shorebirds. Nine Black-crowned Night Herons were visible on the masses of grass and sticks at the entrance to the creek south of the bridge.

The Golden Plover were numerous and conspicuous since they were beginning to acquire their breeding plumage. In a few individuals the transition from winter to spring

plumage was complete.

A couple of Hawaiian Stilts were feeding close inshore, and we were able to get good views of them. One bird was limping, however, and seemed to have a broken leg. Wandering Tattlers, Sanderlings and Ruddy Turnstones were also feeding, but they were few in number.

Two Dowitchers resting on the mud flat obliged us by taking their heads out from under their wings so that their long bills could be seen.

From the harbor we proceeded to Salt Lake where we found the hillsides denuded of Keawe trees and underbrush by bulldozers which had cleared the land for a housing development. It is sad to think that one of the few places of refuge on the island for migrating waterfowl is being destroyed.

One Mockingbird, a flock of approximately twenty-five Ricebirds and a couple of Kentucky Cardinals were seen on the hillsides.

Chuck Hanson scanning the lake with the telescope located one male and two female American Widgeons, two female Pintails and a couple of Scaup, presumably Lesser Scaup, among the many coots.

The weather was warm and sunny with scattered clouds which made the trip a very pleasant one.

Martha Rosenquist

SHAMA IN WOODLAWN:

For several weeks Blanche Pedley had been hearing an unusual song about her home in upper Woodlawn, and was delighted to see the shama several times during the first week in April. The bird came out in full view in various locations, giving ample opportunity to study his markings, and has been singing close at hand. This is the first time that the shama has been reported in this area.

MAY ACTIVITIES:

FIELD TRIPS: RUTH ROCKAFELLOW WILL LEAD THE MAY TRIPS.

- May 11 To Manoa Cliffs trail. This is close to town, and a delightful walk. Meet at the Library of Hawaii at 7:00 a.m.
- May 24 SATURDAY. Something a bit different. This walk is planned for the young and the young-old, members, visitors and youth, en family or otherwise.

Meet at 1:00 p.m., under the big monkey pod at the Library of Hawaii, bring lunch or the makings of an evening meal. Fire places will be available.

Destination -- Aiea trail. Guides will be in attendance, and birding, botanizing and hiking will be on the agenda.

We invite all parents and youth who are anxious to learn more about the lore of our Hawaiian woods. Tell your friends with young folks, and you come, please.

REMEMBER, SATURDAY AFTERNOON, May 24th.

MAY ACTIVITIES:

MEETING:

May 19 - At the Aquarium auditorium at 7:30 p.m.

The National Audubon Society is most generously lending us slides of birds, mostly Western, some migratory, and some introduced into Hawaii. Chuck Hanson will tell us about each one.

One item of business will be discussed. A committee has been working on the revision of the old mimeographed bird pamphlet. We would like to issue this in printed form, and authorization for this will be asked of the membership at this time.

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