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Published for the Fantasy Amateur Press Association at mercilessly infrequent intervals by Bob Silverberg, Box 13160, Station E, Oakland, California 94661, and done up into visible form this time by Susan Wood of far-off exotic Vancouver, and how odd it is that this publication has almost always been brought into being by friendly Canadian hands.

JOURNAL OF THE DROUGHT YEAR

It is the eleventh of July, a bright sunny day in Northern California, not even a hint of

the familiar San Francisco Bay Area fog that one often finds on summer mornings here. It did not rain yesterday, it will not rain tomorrow, and it would be cause for considerable surprise and much local hubbub if any rain at all fell between now and, say, the tenth of October. But dry summers are normal around here. If it rains as much as once between mid-April and early October, that's an oddity. The winters are when the rains are supposed to fall, in coastal California's Mediterranean climate, and if we fail to have a rainy winter this year it's going to create social and environmental dislocations that will be felt all across the United States.

I knew about California's ge/no-go weather system when I moved out here six years ago, although it turns out that most Americans are unaware of the extraordinary alternation of wet and dry seasons that this state alone enjoys, and many native Californians are virtually unaware that it is quite common to have rainy summer days in Illinois, say, or Pennsylvania. My first summer in California was totally dry, the rains having given out in late March, and as each bright, warm day succeeded its predecessor I wondered why anyone bothered to listen to weather forecasts. The only variation, from May through September, was the degree of fog incursion; some nights the fog that came through the Golden Gate was so voluminous that it stayed around all the following day, and some days the fog hovered until ten or eleven in the morning, and some days were not foggy at all, but that was about it. Of rain we had done until early autumn, and I grew

accustomed to leaving perishable things like paper cartons outdoors overnight, confident that no sudden rain would appear to damage them. When the rains finally did come, I had almost forgotten the whole concept of water falling from the sky.

The rains came with a vengeance that year — the rainy season of 1972-73 was the third wettest since records began to be kept in these parts in 1849 — and as deluge after deluge drenched us through October and November, I began to wonder how much I was going to like six straight months of it. The rains were interrupted for nine clear, cold days in early December — days of recordbreaking frost, when the temperature dipped into the twenties every day for a week and a whole ecology of subtropical vegetation was wiped out in the Bay Area — and then the wet stuff returned. It went on raining, every two or three days, a ghastly gray squishy winter, until early April, when, as suddenly as though a switch had been thrown, the skies were bright again and we settled into our dry season. And dry it stayed until the first of October, when there was a bit of a drizzle, and later in October the rains returned once more.

The wet winter of 1972-73 dumped about 35 inches of rain on the hill-side where I live. The "normal" rainfall is 22 inches a year. The rainy season of 1973-74 was almost as soggy -- 32.09 inches, again aboug 50% above normal. By early 1974 I had begun keeping a chart of such things, for I was now deep into my horticultural phase and wanted to know as much as I could about local weather conditions; my records show that there were eight rainy days in February, 1974, thirteen in March, seven in April. I was busy during that muddy spring trying to excavate the site of a planned cactus garden, and, as I slogged around in slippery gunk trying to create a desert, I looked worriedly toward the sky and said, "God, I think I'd like to try a drought for a while." I really did.

So I guess I'm the one who did it.

The weather started going wonky in July, 1974. On July 8 and 9 we got 1.75 inches of rain, which broke every record for California summer rainfall. An occasional July drizzle occurs here every four or five years, adding up to perhaps a tenth of an inch of rain, and that two-day downpour was something like ten times the total record rainfall for any entire month of July here; I forget the exact dimensions of the abnormality, but I did write about it in FAPA when it happened. It was, at any rate, an awfully uncommon event, and didn't bode well for the drought I had requested. But then no further rain fell until October 28, 1974, when we got three quarters of an inch, followed by half an inch three days later. That was a slightly late start for the rainy season (it usually begins up here by mid-October, and in the Los Angeles area five or six weeks later) but not abnormal.

It rained again on November 7, and then on November 18. That elevenday gap brought sighs of relief from me -- I had planted my cacti by this time, and I was troubled by the thought of their going through another wet winter similar to the last two, but evidently that wasn't going to happen. Indeed we got rain every three to five days through late November and early December -- a decent, manageable interval -- and then came strangeness again, because everything was dry from December 4 through December 27, three weeks of sunshine in what was supposed to be the pits of the wets. The arrival of Bill Rotsler in the Bay Area brought a little post-Christmas rain, and then came another long dry spell, from January 8 through 26 of 1975. I recall holding skinnydipping parties at my pool on balmy January afternoons, the temperature a Los Angelesesque 70° or so, and thinking that this sort of winter weather wasn't really so bad.

The rains finally camught up with Northern California that season—there were twelve rainy days in February, sixteen in March, seven in April. It was a weirdly divided winter, dry in the front half, wet in the back stretch, but it all added up to 22.79 inches, just about exactly normal—which tells you a thing or two about the relevance of statistics. We had a few scattered little drizzles in June and July, barely measurable, and in the fall of 1975 came the return of the wet, neatly on schedule—tenth of an inch on Oct 6, a 1.7 inch downpour on October 9, then a couple of dry weeks and a fierce 2.2 inch dunking on October 26, and 1.12 more four days later, adding up to a very wet October of over five inches of rain, more than twice normal and nearly equal to the ghastly wet of October, 1972.

What none of us knew was that that was the end of California's rains for a long time to come. God was about to give me the drought I had so wantonly requested the year before. There were two teeny rainstorms in mid-November, and otherwise the month was dry, to my great delight. (For in those far-off days I thought of rain as an enemy of my pleasures, and looked longingly toward arid Southern California, where even in a normal year rains are few and far between.) Warm golden November gave way, weirdly, to the second straight sunny December; my records show a quarter of an inch of rain on December 12, .30 on December 22, and otherwise nothing -in effect, complete zilch now for two months in a row. Ah, I said, we had two wet winters in succession, and now we're going to have two of these dry-and-then-wet ones. Sure. But January brought three drizzles, a total of .41 of rain, or about 10% of normal, and February was mostly dry too, and March had just one significantly rainy day, and only with the aid of two fairly wet days in early April were the total statistics for the rainy season brought up to even drought levels. I recorded 13.34 inches of rain in the 1975-6 season, nine below normal; across the bay in San Francisco it was

even drier, and just to the north in Marin County, normally the wettest district in the immediate Bay Area, rainfall was about a third of what is considered customary.

So that is a drought year, I told myself. Well, not bad. I could live with a climate like that quite happily. We had had about 25 rainy days in the entire season, which is more or less the San Diego situation year after year, and I had enjoyed the mild, sunny winter inordinately; how nice, I thought, to get Southern California rainfall patterns while enjoying Northern California scenery and civilization! Next year, of course, things would go back to normal, and I'd have to put up with week after week of rain, but at least I had had the fun of the 1975-76 winter.

Some fun.

God uncorked another weirdness in August, 1976. It rained on August 14, August 15, August 18, and August 22 -- a solid week of pure February weather, ruining crops, rewriting the record books, upsetting vacation plans for millions of people. It was even more implausible than the big downpour of July, 1974, for this was a whole week of typical winter storms right in the middle of the summer, and nothing remotely comparable had ever happened in Northern California before. (Southern California occasionally gets summer rainy spells that wander up out of tropical Mexico, but our rainfall comes out of the northern Pacific and isn't supposed to be able to penetrate our shield of high-pressure air in the warm months.) The August rains, though, turned out to be the longest rainy spell we were going to see for a long while. A storm on September 28 appeared to betoken an early arrival of the normal rainy season, but by October 3 the skies were clear and the rest of the month was downright hot as well as dry. We went six weeks without rainfall -- until November 11 -and then came a wholly unprecedented seven-week absence of precipitation, broken at last by a two-inch fall that began on December 30.

By then, the wisest among us knew that we were in the soup.

There had been plenty of dry years in California history — as recently as 1971-72 the rainfall had been half normal — but there had never been two severely dry years back to back, and even the years of moderately dry weather, as for example 1923-25, had occurred at a time when California's population was a fraction of what it is today. There are few great rivers in California, and most of the water supply derives from the runoff of melting snows from the Sierra; some localities have underground water, and Los Angeles is served by aqueducts bringing water in from the Colorado River and the Owens Valley, but

up here we depend on what God sends in the winter, which is usually quite a lot. The dry winter of 1975-76 had made a notable dent in the reservoirs, and the dry November and December of 1976 had made things a lot worse. Some of us began to wonder what would happen if the weather stayed this dry. In suburban Marin County, the future was already at hand, for Marin, by its own choice, is unconnected to any of the big water-delivery systems of the rest of the state. (The idea was to limit population growth.) Marin gets a lot of rain, usually, and believed itself to be self-sufficient. When it turned out otherwise, the Marinites began to parch, and water rationing was instituted there in 1976, limiting people to a hundred gallons a day or thereabouts per capita. The rest of us went on using water as before, although there was grumbling about hosing off sidewalks, flushing toilets after urinating, serving unwanted water in restaurants, etc.

Now I have an acre of land here, and it is entirely landscaped, much of it in drought-resistant plants like cacti and aloes and California natives that I have planted myself, but much of it also in things like rhododendrons and fuchsias that require a lot of water. I also have a swimming pool. I am a large consumer of water, as homeowners go; in an ordinary summer month I use about 50,000 gallons, which is about 1600 a day, including a lot of lawn watering, constant topping off the pool, liberal hosing of the fuchsias, and so forth. In the winter I normally use a lot less, since it's raining, but I observed in early 1977 that I was having to water the garden almost as frequently as in summer. If I am consuming water at a greater than normal rate, I told myself in January of 1977, and no new water is reaching the reservoirs, then the lack of rain is having a doubly depleting effect, and, by golly, we're going to run out of water before long if it doesn't start raining. Is such a thing possible? This is California! This is 1977! They'll figure out something.

And we started to run out of water.

The total rainfall between January 3 and January 31 was .16 of an inch. There was a quarter of an inch on **EMNUARY** February 8, half an inch on February 21, a quarter of an inch on February 23, and that was it for February. March had six rainy days. April had two. The ground, of course, was so dry by now that whatever rain did fall was soaked up instantly; there was no runoff into reservoirs and nothing got down to the roots of plants. Worst of all, the rainfall/snowfall up in the mountains, where the main reservoirs are, was even farther below normal than along the coast. Ironically, arid Southern California got normal rainfall all winter. But I ended up with another 13-inch rainy season, and that figure is highly deceptive, because it was padded by unprecedented August rains and by abnormal rains in May of 1977. What counts, for irrigation purposes here, is what

falls between October and May, and for the past two years that has been virtually zilch.

Water rationing, of course, finally came to us somewhere around February or March of this year, after it became apparent that the rains weren't going to arrive "next month," because there weren't enough next months left in the rainy season to make a difference. Each water district sets its own rules, depending on its population and the condition of its reservoirs; San Francisco simply ordered its people to use 25% less water per household than the year before, which would have suited me fine, since it would still have left me with something above a thousand gallons a day to use if I cared to. But over here in the East Bay we were given much more egalitarian treatment: every household was allotted 280 gallons a day. Consumption beyond that point brought cash penalties that rose steeply with each hundred gallons or so, and if your consumption exceeded 900 gallons a day, they said, they would reprimand and warn you, and if after thirty days you were still overconsuming they would come around and put a flow restrictor on your water system so that it would be impossible to overconsume. 225 280 gallons a day is okay for Terry Carr, who has only a small garden and no swimming pool; but I am living on an acre of fully landscaped land, and the new regulations imposed something like an 80% reduction in my water supply. And thus does God teach us not to ask lightly for miracles.

I am learning all about drought. I learned a lot in the early 1960's, when New York City went through five dry years in a row, but I'm learning more now, because things are a lot worse here. (We had the Hudson River as our emergency water supply in New York, and toward the end of the drought we were tapping it. The Hudson may be foully polluted, but at least it's potable in its northern reaches, whereas the local emergency water supply is San Francisco Bay, which is salt water.) I stopped using the dishwasher and began sponging dishes by hand—saving perhaps 10 gallons a day. Toilet flushing is held to a minimum, and I pee in the compost heap. Saving, 50 to 100 gallons a day, depending on how many people happen to be staying here. Showers are limited to two minutes; that saves another 100 gallons a day or so. Laundry is saved until there's a full load. And so on and so on.

In the garden, the highest area of water consumption, cutbakks have been equally drastic. The fuchsias get watered by hand, with a bucket, instead of getting zapped ffom afar with a hose. That saves about 50 gallons every time I water. The rhododendrons, which used to get watered twice a week for 45 minutes at a time, now get watered once a week for 30 minutes; I don't know how much of a saving that is in gal-

lons, but it's better than a 50% reduction in consumption. The lawns get watered every fourth or fifth day instead of every other day, and for shorter periods. During the last sputtering weeks of the rainy season I rigged a catch-barrel so that whenever any rain did come down, I was able to store fifty gallons of it, and I used that on the house plants instead of drawing from the tap. When the water-bed had to be drained to make repairs to the frame, I siphoned the water into the pool instead of dumping it. And so on and so on.

It is all a great nuisance, but running out of water entirely will be an even greater one. And I have achieved a dramatic cutback in my water consumption here. During the billing period that ran from Feb 16 to April 16, I used only 266 gallons a day out of my quota of 280. That represented approximately a 75% reduction from normal springtime use here. Unfortunately, on May 1, after reexamining the state of the reservoirs, the water district cut every ody's base quota to 225 gallons a day. And now the weather began to turn warm, meaning that the garden would require more even under these stringent conditions, and now the rains were gone for the season, so there wouldn't be even their slight aid to rely on. During the billing period that ran from April 16 to June 16, I used 355 gallons a day -- well over my quota, but still a 75% reduction from the year before. Now we are into the heat of summer, and I imagine my consumption these days is running 500 gallons a day despite all efforts, and this is not going to please the water district; but last year at this time I was using 1600 a day. I'm trying. I'm still peeing in the compost heap, I have purchased a pool cover to retard evaporation, the lawn is brown and crinkly, and guests are advised to take showers at home before setting out. It's a drag. It's a monstrous drag. I eat on dirty dishes, I recycle bath water into the toilet tank, I calculate how much water a 30-year-old 20-foot rhododendron really needs and hope I'm not going to kill it by September.

And it is July 11, and we have 90 days to go, probably, before it rains again, and the seservoirs are nearly empty, and what will we do if it's dry again next winter?

Nice question. Don't have nice answers.

They talk about towing icebergs up from Antarctica for us, they talk about building desalinization plants on the shores of the Pacific, which is handily located right next door, they talk about stringent water conservation that would eliminate just about everything except toothbrush moistening. But I haven't heard of any real contingency plans. We are all assuming that the drought will end, but the universe may not know about that. Down in Los Angeles they have finally instituted a mandatory 10% cutback and made the hosing down of sidewalks

illegal, but the Angelenos are still doing it, or were the last time I looked, a couple of weeks ago. They say they don't have to conserve because most of their water comes from the Colorado River, but the drought has reached as far as the sources of the Colorado by now, out in Wyoming, Colorado, and Utah, and some of the dry states upriver from Los Angeles are apt to be asking for bigger water allotments soon, and the river level itself is falling. There will be very little sympathy for Los Angeles and even less help if their reservoirs ever get down to the levels ours have reached.

And so we live our happy lives under the cloudless summer skies, and we turn the taps off while sopping ourselves in the shower, and we water our gardens with buckets of used laundry suds, and we wonder what's going to happen come winter. Those of you who have visited my garden will be glad to know that so far, despite strict conservation here, nothing significant has died — a few ferns have withered, the lawn of course looks awful but should recover in the fall, and the cacti, having enjoyed two dry winters in a row, are robust and flowering mightily. But even though nearly everything is surviving, most of the non-succulent plants are struggling along, and will barely make it into the fall, and of the winter is dry again they'll probably die next summer, when all outdoor watering will be prohibited.

It's been instructive. We've learned that we're vulnerable to whims of the weather, even here in the gaudy twentieth century. We've learned how much water we can really do without. (I could probably have kept my garden as green as ever on 50% of the water I used to use. If the drought ever ends, I probably will never go back to watering as liberally as before.) We'fe discovered that jobs, the fost of living, the quality of life, and a lot of other things depend on a cheap and reliable water supply. And — as the strains of the shortage begin to show, as the setting of social priorities begins — we're learning more about the primordial drives within us.

What happens next? Will there be water wars, raids by night on the reservoirs of neighboring towns, blockades? Will breweries and carwashes and nurseries be forced to close? Will tourists be banned from San Francisco? (Appalling to hear them flushing toilets!) We'll start getting our answers by November.

You, out there, who suffered through the Big Freeze of 1977 while we were lolling by the swimming pool -- I wish you a little California sunshine this winter. Wish us a little rain. Wish us a lot, in fact.

-- Bob Silverberg