

California

# Sea Caving

in the Channel Islands

—A Decade of Intertidal Adventure

By Dave Bunnell

Photos and Maps by Author

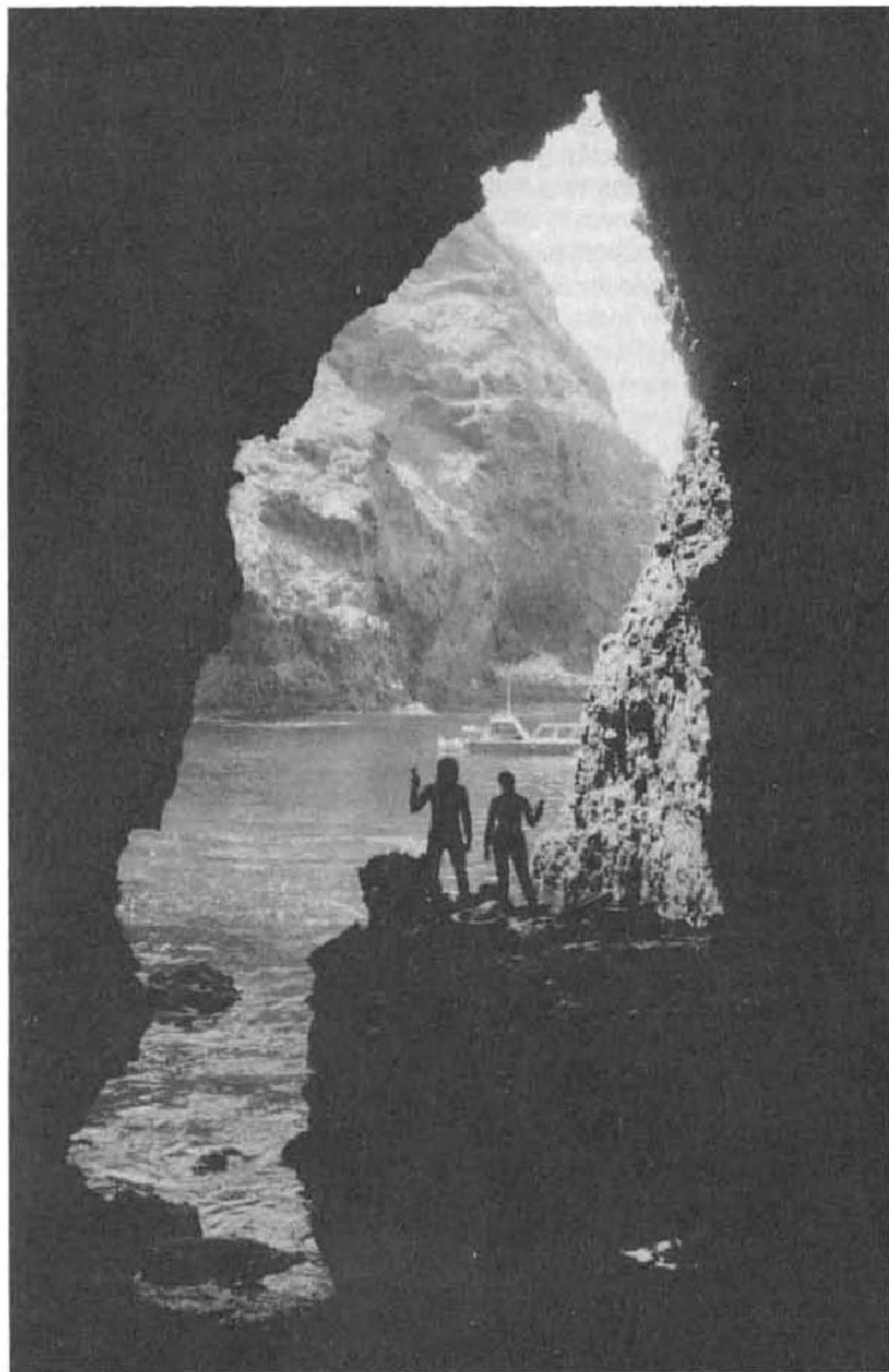
Littoral or sea caves may represent 50% or more of the caves in California, yet until the '80s few cavers had bothered to search them out and actually map

them—despite the fact that many of them are larger than many of the solutional caves whose maps are found in grotto newsletters in cave-hungry states like ours.



Systematic study of sea caves in California began with the formation of the Southern California Sea Cave Survey in 1982. Since then, about 250 coastal sea caves have been mapped, reaching lengths of up to 790 feet. However, the real excitement in California sea caving was to be found in the California Channel Islands, a group of eight islands off the southern California coast. Five of these—San Miguel, Santa Rosa, Anacapa, Santa Barbara, and a portion of Santa Cruz islands—fall under the jurisdiction of Channel Islands National Park (or CHIS, its NPS acronym). With over nine miles mapped in over 380 caves, CHIS has more caves than any Western park outside of the Grand Canyon. As I hope to convey in this article, this is truly a world-class concentration of large and diverse littoral caves.

Published accounts of the island caves are known from 1891, when Lorenzo Yates described several on Anacapa Island in the *American Geologist*. Painted Cave and Cueva Valdez, two large caves on Santa Cruz Island, were well known and are marked by name on the USGS topographic map. While Painted was generally known as a large and spectacular cave, published accounts left much room for speculation on its true size. In 1951 the Western Region organized an expedition to the islands in conjunction with Phil Orr of the Santa Barbara Natural History Museum. Orr's unpublished accounts suggest that they entered a couple of dozen caves throughout the various islands but generally had weather



Looking out of the entrance to Cave of the Birds' Eggs. Island Caver in the background.

## LONG CAVES OF THE CALIFORNIA CHANNEL ISLANDS

CAVE NAME	ISLAND	LENGTH (FT)	LENGTH (M)
1. Painted Cave	Santa Cruz	1,215 ft.	374 m
2. Catacombs Cave	Anacapa	808 ft.	246 m
3. Cathedral Cave	Anacapa	790 ft.	241 m
4. Jumbo Gumbo	Santa Rosa	673 ft.	207 m
5. Bat Cave	Santa Cruz	622 ft.	190 m
6. Seal Canyon Cave	Santa Cruz	620 ft.	189 m
7. Keyhole Rock Cave	Anacapa	590 ft.	180 m
8. Three Door Cave	Anacapa	590 ft.	180 m
9. Green Grotto	Santa Cruz	585 ft.	178 m
10. Swiss Surprise Cave	Santa Cruz	577 ft.	176 m
11. Shark's Teeth Cave	Santa Cruz	518 ft.	158 m
12. Three Fingers Cave	Anacapa	490 ft.	149 m
13. Cave of the Mists	Santa Cruz	489 ft.	149 m
14. Neptune's Trident-East Fork	Santa Cruz	476 ft.	145 m
15. Half Gone Cave	Anacapa	462 ft.	141 m
16. Witch's Cauldron	Santa Rosa	455 ft.	139 m
17. Respiring Chimney Cave	Anacapa	448 ft.	137 m
18. Cueva Valdez	Santa Cruz	407 ft.	124 m
19. Shipwreck Cave	Santa Cruz	403 ft.	123 m
20. Seastack Cave	Santa Cruz	400 ft.	122 m
21. Lady's Harbor Cave	Santa Cruz	400 ft.	122 m



Author, Dave Bunnell crawls out of Shortcut Cave, which crosses completely through a portion of West Anacapa Island. Photo by Djuna Bewley.

### Santa Rosa Island

With Anacapa and Santa Cruz completed, Santa Rosa is our current focus. It is the second largest of the Channel Islands and offers a variety of host rocks for cave development (sandstone, conglomerate, mudstone, etc.). Our trips here have been supported by the NPS, which has provided transportation and lodging on the island. Instead of reaching the caves from a mother ship, we have been hiking and climbing down to the caves from above, as well as using sea kayaks. In three trips, we have surveyed 45 caves. There is much to be done yet, and we've seen some huge entrances facing into the Northwest swell that beckon us to return. Our largest find to date is Jumbo-Gumbo Cave, an impressive borehole passage up to 100 ft wide, 673 ft long, and littered with some house-sized breakdown (OK, so I live in a small house). But even more unusual is the presence of three large, littoral sinkholes....

### The Witch's Cauldron

It was obvious on both the topo and aerial photos—a circular hole over 100 ft across just by the ocean—surely a littoral collapse feature. Would we need rope to enter? Phil Darling, Nancy Pistole and I swam under the long bridge separating this feature from the ocean and found three arms radiating from what must have been a very large room. To the left, we swam and waded back 150 ft in a pleasant passage which ended on a sand beach. This was the easiest of our survey. We



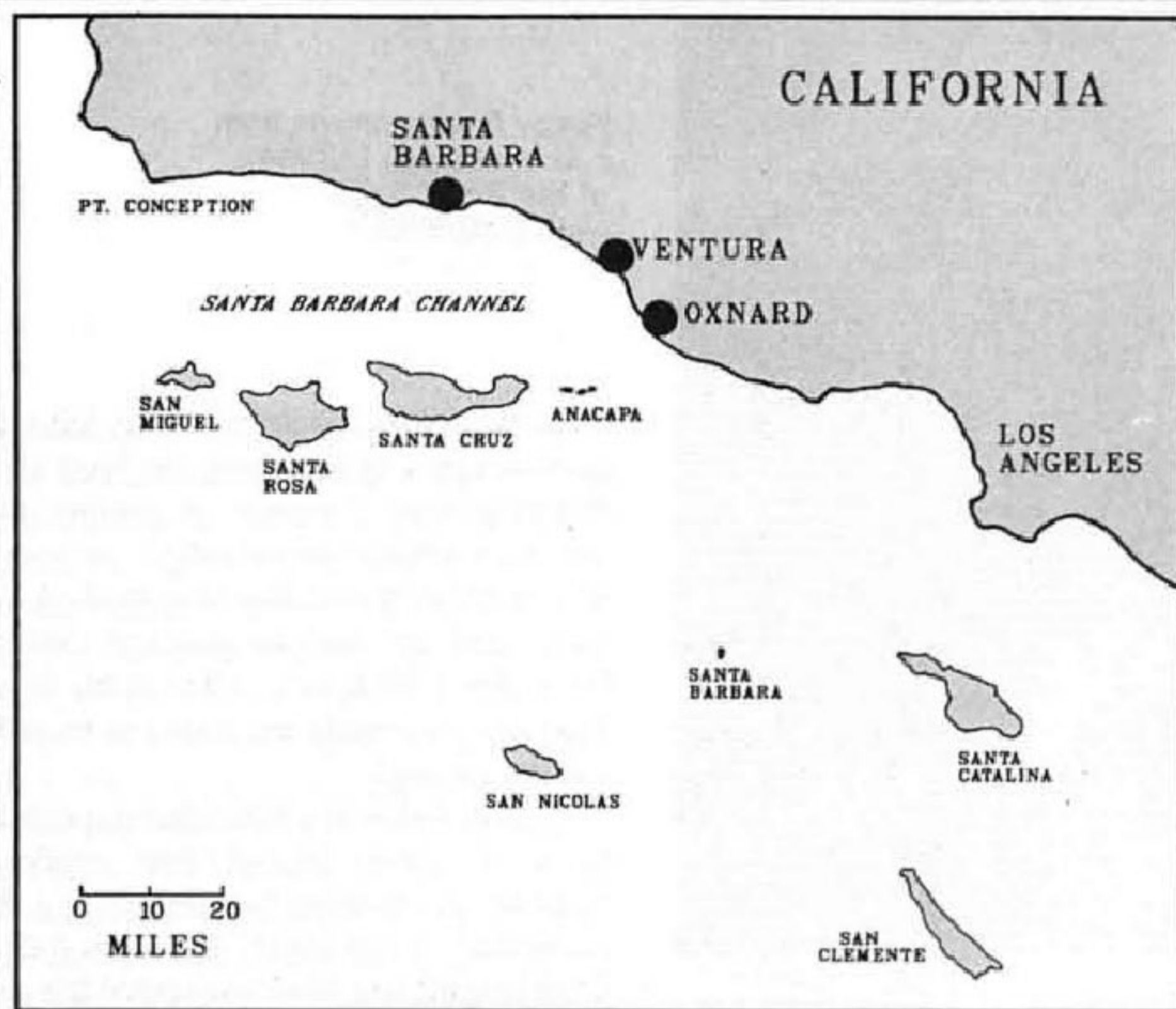
approached the main trend hesitantly—it was a broad passage, about 25 ft wide, but only about four feet high—not the place to be with some of the swells that were kicking into the cave. However, fearless Phil reached the back and coaxed us in. (However, I still remembered Deathtrap Cave and approached it very cautiously). Since I was sketching, I decided I had to see what the passage did—it ended in a large cobble beach, no doubt submerged at high tide like the rest of this passage.

Back under the skylight, the seas were really churning. We made a dash for the third "arm" of the cave, which proved to be somewhat under 100 ft long and all

water-floored. Technically, all three passages are under the same dripline, so I tallied the cave up at 455 ft. We swam out through the rough surf, climbed back up and did a surface survey.

### Acknowledgments

Many people have participated in the island surveys. I would particularly like to thank the following people, who were motivated enough to go on more than one trip: Djuna Bewley, Peter and Ann Bosted, Dan Clardy, Phil Darling, Don and Lisa DeLucia, Ernie Garza, Bob Henderson, Bill Liebman, Ed Moody, Don and Susan Morris, Matt Oliphant, Nancy Pistole, Carl Reuter, Bob Richards, and Carol Vesely.



## Why Explore Sea Caves?

I've often been asked what the appeal of sea caves is. After all, they're never going to be miles long. However, few cavers are so jaded that just a few hundred feet of virgin cave isn't worthwhile. Sea caving shares with all caving that feeling of, "I wonder what's around the next corner." As I hope this article will show, I've been pleasantly surprised by the unexpected size and variety of the stuff "around the corner" in many of the Channel Island caves. The Catacombs,

Seal's Secret, Respiring Chimney, Swiss Surprise, Shipwreck—all provided those that explored them with that sense of discovery that makes all caving so exciting.

Though typically lacking in dripstone formation, sea caves often have coloration provided by a variety of intertidal organisms like sponges and red algae (which forms a purple coating on the walls of passages). Sometimes we frequent with seals, who appreciate the

caves for reasons not determined. The entrance zones of these caves are often aesthetically pleasing, particularly when submarine openings admit light and the water glows a blue-green. To my delight, I've run across some impressive dripstone in half a dozen of the sea caves we've explored.

The third appeal of sea caves is the physical challenge of exploring them. Modes of exploration have ranged from kayaking, wading, "tubing," snorkeling, or even full-blown cave diving with scuba. Sea caves are a dynamic environment, akin to river caves, except that in the latter case, the river only flows one way. In sea caves the surge created by surf can alternately push you in and suck you back out (which can make for awfully tough survey conditions, when staying "on station" becomes the challenge). A judgement call must often be made as to whether a given cave is safe to enter, for like a river cave in flood, entering a sea cave at the wrong time may be suicidal. When sea conditions are calm, sea caving is a joy, but sometimes your only shot at a cave must be made in questionable conditions.

I am fortunate to have caved with several whose willingness to enter in such conditions exceeded my own, most notably "Fearless Phil" Darling. Only on a few occasions did I ask myself, "what the hell am I doing here?," like the time I was standing at the back of a 200-ft-long passage and watching the entrance close off completely as a large swell came in.

that was unfavorable for mapping. A single map was produced and published in the museum's publication in 1951. K.O. Emery visited the island shortly thereafter and produced a map of Painted Cave published in a boating magazine in 1954.

Logistically, caving on the islands is difficult because you need a boat to get there and the weather is often unfavorable (sometimes life-threatening) for entering sea caves. You need a full wetsuit, fins, and good, waterproof lights to reach and explore them from the boat. A half-dozen trips to Santa Cruz Island using the University of California's research facilities from 1982 to 1985 whetted my appetite for island caving to the point that I purchased a 20 ft powerboat in 1986,

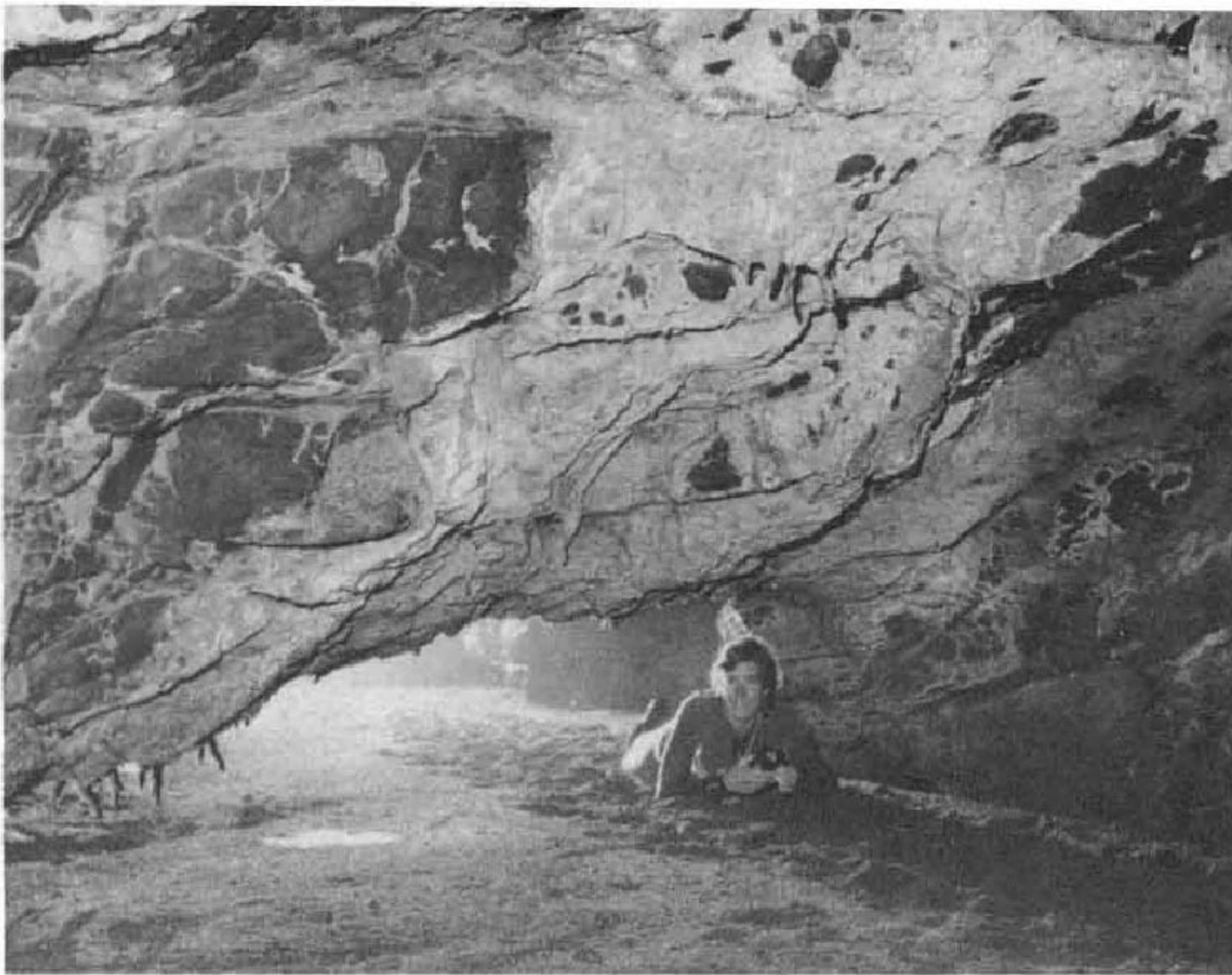
specifically for cave survey and christened her the "Island Caver." Typically, I would recruit up to three fellow cavers to accompany me on weekend trips to the islands, all of us sleeping at anchor on the boat. During this same period, I also discovered that sea caving can make a lousy first date if sea conditions aren't calm....

The rest of this article will attempt to summarize some of the highlights during the decade I've been working in the Channel Islands, culled from logbook entries I kept for each trip.

### Santa Cruz Island

Santa Cruz is the largest and most mountainous of the Channel Islands. It is 22 miles long, 6 miles at its widest, and

has over 77 miles of shoreline. It's about 25 miles from Santa Barbara harbor, where the Island Caver was launched. Currently, about three-quarters of the island is owned by the Nature Conservancy and the remainder is part of CHIS. Our work on this island began in 1982 with the survey of Painted Cave (a map of which appeared in the *NSS News*, February 1983) and continued through the end of 1988. In those six years we mapped 112 caves for a total of over five miles of passage. While many of these caves are unique, perhaps the most impressive aspect of the Santa Cruz Caves is the sheer number of large caves: there are 26 caves over 300 ft long and 46 over 200 ft long. At the end of 1988 I produced a book on the caves (*Sea Caves*



**Nancy Pistole crawls from a side passage in Cave of the Birds' Eggs. Note stalactites.**

of Santa Cruz Island, McNally & Loftin, 1988).

Santa Cruz (and Anacapa) formed from basalt, extruded as the Farallon plate was subducted under the North American plate, during the Miocene epoch (20-25 million bp). Two to five million years ago they were uplifted, resulting in hundreds of faults and fractures. This has created zones of weakness which the sea has eroded to form the caves. Almost every cave is formed along an obvious fault, with more complex caves forming where one or more faults intersect.

#### **A Gonzo Sea Cave Trip: July 19-21, 1988**

One of the most memorable and productive sea caving trips was one I took with Matt Oliphant and Nancy Pistole. Having loaded our numerous scuba tanks, dive lights and other sea caving paraphernalia, the Island Caver departed Santa Barbara harbor on a summer afternoon. We were graced with an exceptionally smooth crossing for the time of day (usually the winds pick up considerably in the afternoon). We did a bit of diving after our arrival and then anchored for the night. Our plan was to rise very early and take advantage of a 1.4 low tide scheduled for 8 a.m. Ideally, one begins sea cave exploration at least a couple of hours before the low tide nadir.

Our first goal the next morning was a series of three large entrances just west of Painted Cave. I had explored one of these and knew that it went back a long ways. It necked down to a low opening with two pointy ceiling pendants hanging down: I had tentatively named it Shark's Teeth

Cave. The sea was like a placid lake as we anchored and floated in on our tubes. I sketched and did compass readings while Matt and Nancy set stations and did tape. The cave was a typical single passage along an obvious fault, averaging some 20 ft high and 40 ft wide. It was a pleasure surveying without a large swell to hinder the survey process. We knocked off 518 ft in this cave and moved on to its neighbor, about 100 ft away. This cave was very similar in nature, with deep water all the way to the rear. However, it exhibited a unique breathing phenomenon from its back reaches. As the small swell rose and fell over a small opening, air would rush in and out accompanied by an impressive blowhole. We named this feature "the respirator" and the cave, Breathing Cave. We suspected that a lower tide might open up into a large, air-filled chamber, but the seas had best be very calm before trying it! Since the next cave around the corner seemed to head for this one, we surveyed over to it, suspecting that it might connect. Alas, if such a connection exists it is submerged. This third cave (Kelp Trap) extended some 220 ft back through deep water to a small, uninviting chamber thick with kelp.

Next we motored west past Painted Cave and anchored in a beautiful sheltered cove which appeared to have several cave entrances. The water was a clear emerald green and flat as a lake. The first cave (Sideways Cave) was unusual as the fault along which it was cut was parallel to the cliff-face. Indeed, the entire side of the fault had been cut away, leaving a

70 ft by 100 ft chamber. On the left side a narrow opening lay along the fault plane. Entering was a matter of timing: there was no fighting the outsurge, so you had to ride the surge in. It was quite dark back here, and the narrow passage extended back about 80 ft to a little cobble beach. This was definitely not a spot to be with a swell running!

Next to Sideways was what appeared to be a dry cave. Indeed, just inside the dripline we climbed five feet up to a shelf encrusted in red algae. Here we found a dead seagull and Matt suggested the name "Dead Bird Cave," which somehow didn't appeal to my sense of aesthetics. On one edge of the shelf was a tidepool in which a huge jellyfish with purple markings had been trapped by the lowering tide. Surveying in, we left the water far behind and surveyed through breakdown in a vaulted passage 30 ft wide and 20 ft high, following an obvious fault. We reached a sandy-floored section with a natural bridge. At this point we started noticing formations. Formations? In a sea cave in volcanic rock? Yes, indeed, and pretty nice even by limestone cave standards. There were considerable bacon, stalactites up to two feet long, flowstone, etc., and most of it pure white! There was a surprisingly rapid drip coming from the ceiling and this was forming interesting craters in the sand. There was little deposition on the floor, save some white flowstone on some of the rocks. My supposition was that the rear of the cave is flooded by periodic storms and stalagmites don't have enough time to form. Further back we found a 60-ft-long side passage reached through a low spot next to some stals. In both this passage and the rear of the main passage, we found several types of bird's eggs in the sand, prompting another name for the cave, Cave of the Bird's Eggs.

On a roll now, we collected the dinghy to survey a cave just around the corner. This proved to be a pleasant water-filled chamber with a dome in the rear and a beautiful underwater glow to the water. A large pendant hung down partway in the water and we could see that a lower tide would expose it completely. Nancy suggested the name "Uvula Cave" for the

**Nancy Pistole in Cave of the Birds Eggs. Note prominent faulting.**

resemblance of the pendant to the anatomical structure of the same name. Attesting to the calmness of the seas, it was the first time we'd ever successfully set stations from the dinghy.

Everyone was tired that evening from the long day of surveying. I transferred the notes from the dive slates (which would be needed the next day) and totalled up our survey for the day: an impressive 1843 ft mapped in six caves. Our plan was to get up early again the next day and attempt the caves on the West End.

#### ***The Mysterious West End Caves Revealed***

The channel between Santa Cruz and Santa Rosa islands is notorious for rough seas, often called "Windy Lane" or the "Potato Patch." Once West Point on Santa Cruz has been rounded, one is faced with the full brunt of the west swell. We had motored through this area a number of times before and had always been intrigued by a series of large, gaping entrances. However, the crashing surf along this shore had always dissuaded us from even attempting a landing.

As Thursday dawned the seas were still calm, but an early morning wind seemed to dampen our prospects. Nevertheless, we motored on to the West End and found it a reasonably friendly place to anchor. We decided to start with the southernmost caves and hit them sequentially, leaving no cave undone. The first cave we entered had a tall (70 ft), relatively narrow entrance. We took the dinghy as we saw some rocks to land on. Sure enough, much of this cave was dry. Matt spotted the rusting hulk of a V8 engine amongst the rocks and this prompted "Shipwreck Cave" as a name. Numerous birds flew in and out, including Pigeon Guillemots (a diving bird with red webbed feet), and Black Cormorants, with their long, thin necks. The cave's passage was floored with cobbles, which gave way to breakdown in the rear. At 403 feet, this was the largest and most impressive of the West End group.

From Shipwreck Cave we walked along a bench of rock over into the next cove to the south. Here we found a very

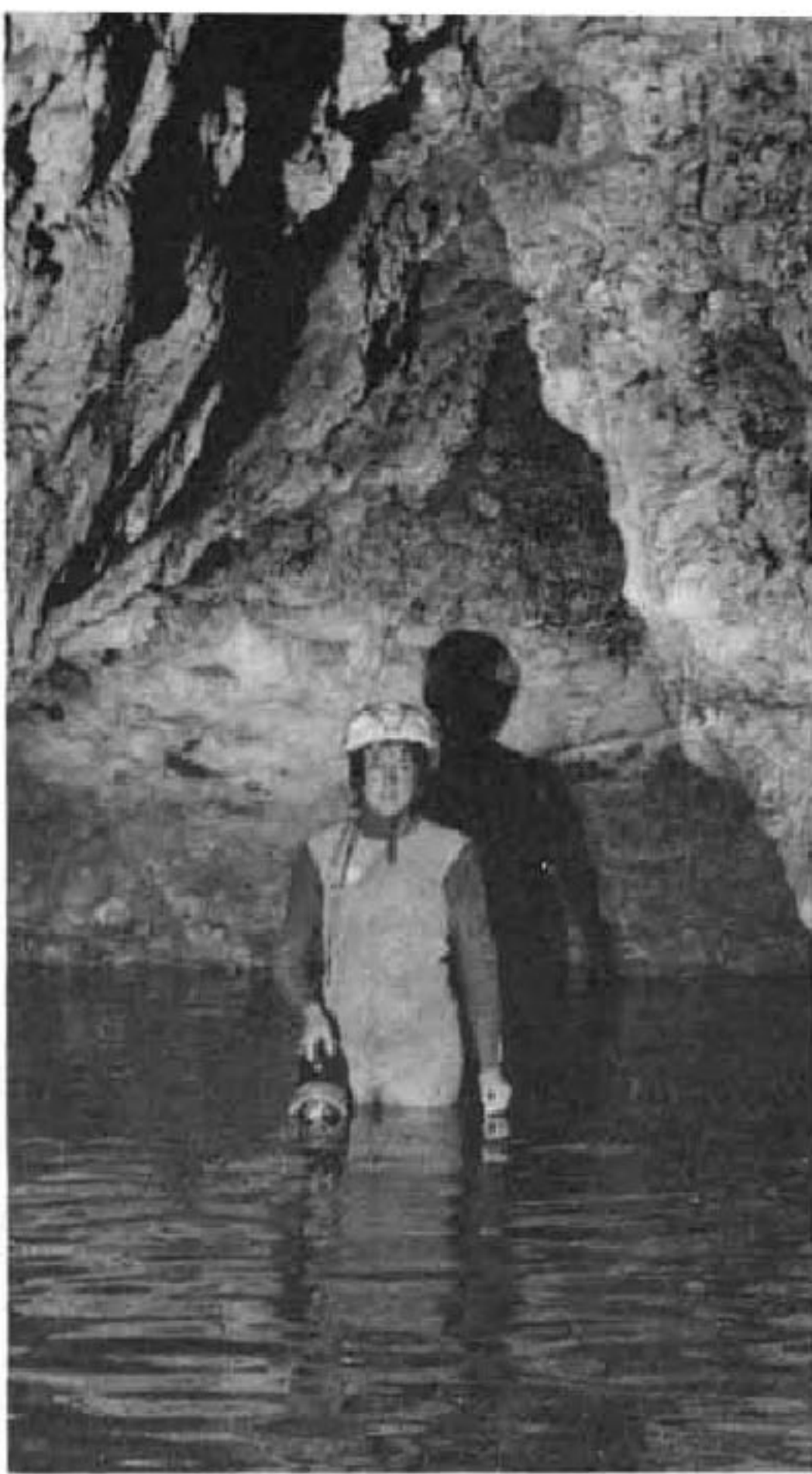


different cave. From a nice, large entrance it soon narrowed down to a couple of feet wide and maybe 10 feet high, all water-filled. At the entrance to the constriction, we paused to listen to a resounding "Boom" coming from the dark recesses within. With brief debate on the wisdom of continuing, we decided to go for it. After all, the seas were calm, weren't they? We followed this narrow section for a couple of hundred feet before ending in a blind wall. The swell height was greatly amplified by the narrowness of the passage; another place not to be in a large swell! We called it Thunder Cave for its impressive roar.

Though it was not far to the next cave, we decided to reposition the boat. We anchored off an unusually-shaped entrance. This cave proved to be short (only 144 ft long) but very pretty. Most of the cave was floored by a bedrock shelf into which several deep channels had been driven. Floor and walls were all covered in red algae and an unusual number of mussels (hence, Mussel Cave). There

were a number of very pretty tidepools containing brightly colored sponges and white anemones.

Back to the boat again for one more repositioning. We anchored off a cave which appeared large, dry, and friendly. Before tackling this, though, Nancy suggested we stick with our sequential survey plan and check out one we had just passed which looked less-than-friendly. Indeed, this cave was much like Thunder Cave, starting wide and necking down to an even narrower crack. We coined it Suicide Crevice Cave and decided to survey only that far. Facilitating matters was a ledge some 10 ft above the water which ran some 150 ft in, according to our survey. Finally we hit the last of our west end caves, a nice dry cave. It proved to be a moderate-sized, cobble-floored chamber turning into a sandy floor. I was struck by the fact that every square inch of this sand was covered with bird tracks (probably gulls). We found a 50 ft side passage on the way out, which gave Birdtracks Cave an overall length of 317 feet.



Djuna Bewley in the Pool Room,  
Bat Cave, Santa Cruz Island.

### A Dive Leads to More Mystery

It was now about 1:00, the tides were getting high, so we decided to get in a second dive before heading home. I suggested that we investigate a cave which lies in a cove just west of Painted Cave. There was an account in *Diary of a Sea Captain's Wife* about chasing seals out of Painted Cave, barring the entrance with a net, then chasing the seals into a "nearby" cave and sealing that off. These seals then found their way back to Painted through a presumed underwater passage connecting the two caves. I could only think of two possibilities for that, one being what I had called Sea Lion's Tunnel because sea lions seem to frequent the cave—unusual for a cave with no beaches or haul-out ledges. The three of us had mapped that cave last year.

Now we were returning with scuba gear to see whether there might be any submerged passages headed towards Painted. Our plan was just to scout but not follow it if we found it, since neither Matt nor Nancy had any cave diving experience and only had one light apiece. On our way into the cave we saw several large rays and some seals underwater. As we followed the right wall in, my cave diving light (which is pretty bright) suddenly revealed only inky blackness. There it was, a broad, roofed-over, underwater passage. After some hesitation, we ventured in a little further. After maybe 75 ft Nancy pointed up and we saw water overhead instead of rock. Nancy went up and motioned us to

follow. Checking back to see that light was still visible, Matt and I headed up. We broke the surface into a large, air-filled passage which extended as far as my light would go! A startled seal jumped off a small ledge. Nancy and I had both removed our regulators and experienced some strange difficulties breathing—possible bad air. With Matt's light near dead, I declared "Not for us today" and I had a sudden urge to get out ASAP. (I later found that Nancy experienced the same phenomenon.) Later comparisons of the compass bearings along this fault suggest it follows the same trend as that in the inner chamber of Painted. However, a connection would require a passage over 1000 ft long!

Thus ended our most productive sea cave trip ever. This was due not only to exceptional sea conditions but also having a motivated "survey 'til you drop" crew on hand. We had mapped 12 caves for a total of over 3225 feet! We had found some highly unusual caves and left an intriguing lead. However, that lead was to remain for over four years, despite two interim attempts aborted by poor underwater visibility and rough seas.

### Near-catastrophe in Deathtrap Cave

There were still a couple of intriguing leads on the West End of Santa Cruz which beckoned. A couple of months later I returned with Phil Darling and Djuna Bewley. Both were new to island sea caving. We anchored the boat in what seemed like fairly mellow seas and swam towards a group of three entrances. Phil and Djuna headed towards the largest of the group and I went to check out the others. After watching the surf in the vicinity of these caves, I deemed it too risky to enter. Heading to the third cave, I noted Phil and Djuna standing on something about 150 ft or so inside—a nice, safe beach, I thought. I started in with little hesitation and climbed up on a rocky bench, some eight feet above the water, that seemed to run the full length of the cave. I walked to the back and joined them. I had just set my inner tube down and was reaching for my slate to begin sketching when a large wave rolled in, picked us all up, and scattered us like bowling pins! My glasses disappeared

along with my tube. Several more sets rolled in and I acted on my first instinct—get the hell out. This wasn't easy but soon Phil and I both made it out.

In the confusion we hadn't noticed that Djuna had lagged behind. What we didn't realize was that she had both of her fins ripped off by the swell and was now bobbing around in the surge channel below the shelf. The surge crashed on into a narrow crack beyond and Djuna was struggling hard to keep from being carried on into that crack. I tried to get back into the cave and kept getting pushed out by the rebound. (Sea caves are funny—sometimes you're being sucked in and other times pushed out, and the strength of the effect has not only to do with the surge but also the configuration of the cave's passage and where you happen to be inside of it.) Fortunately, Phil is a very strong swimmer and was able to reach Djuna and help her climb back onto the shelf. From there she was able to walk towards the front of the cave and get into the water without being trapped in the surge channel below the shelf. She escaped safely but not unscathed: the surf had taken not only her fins but her booties as well, and walking across the mussel and barnacle-covered shelf made a bloody mess of her feet.

This experience reinforced what had generally been my practice in exploring sea caves: you watch them for awhile before you enter, and make sure you see what the ocean is capable of dishing out at this time and place before entering! I wasn't surprised to find out that Phil had been the first to enter the cave, as he later gained the reputation as the person who could most be counted on to keep pushing ahead when sea conditions were too sporting for everyone else.

### A "Swiss Surprise"

A lead that had intrigued me for some time was in a cove on the western end of Santa Cruz. The cave began as a 20 ft by 30 ft entrance but necked down after 50 ft to a fissure 2 ft wide and 20 ft high. This had a tremendous amplifying effect on the swell on even a calm day. On the day I first contemplated going further in it, the swell must have been rising and falling a good 8 to 10 feet. I chose to

# SEALS' SECRET CAVE

Santa Cruz Island, California  
Channel Islands National Marine Sanctuary

Compass and tape survey (outer cave) by:

D. Bunnell, M. Oliphant, N. Pistole  
1 March, 1987

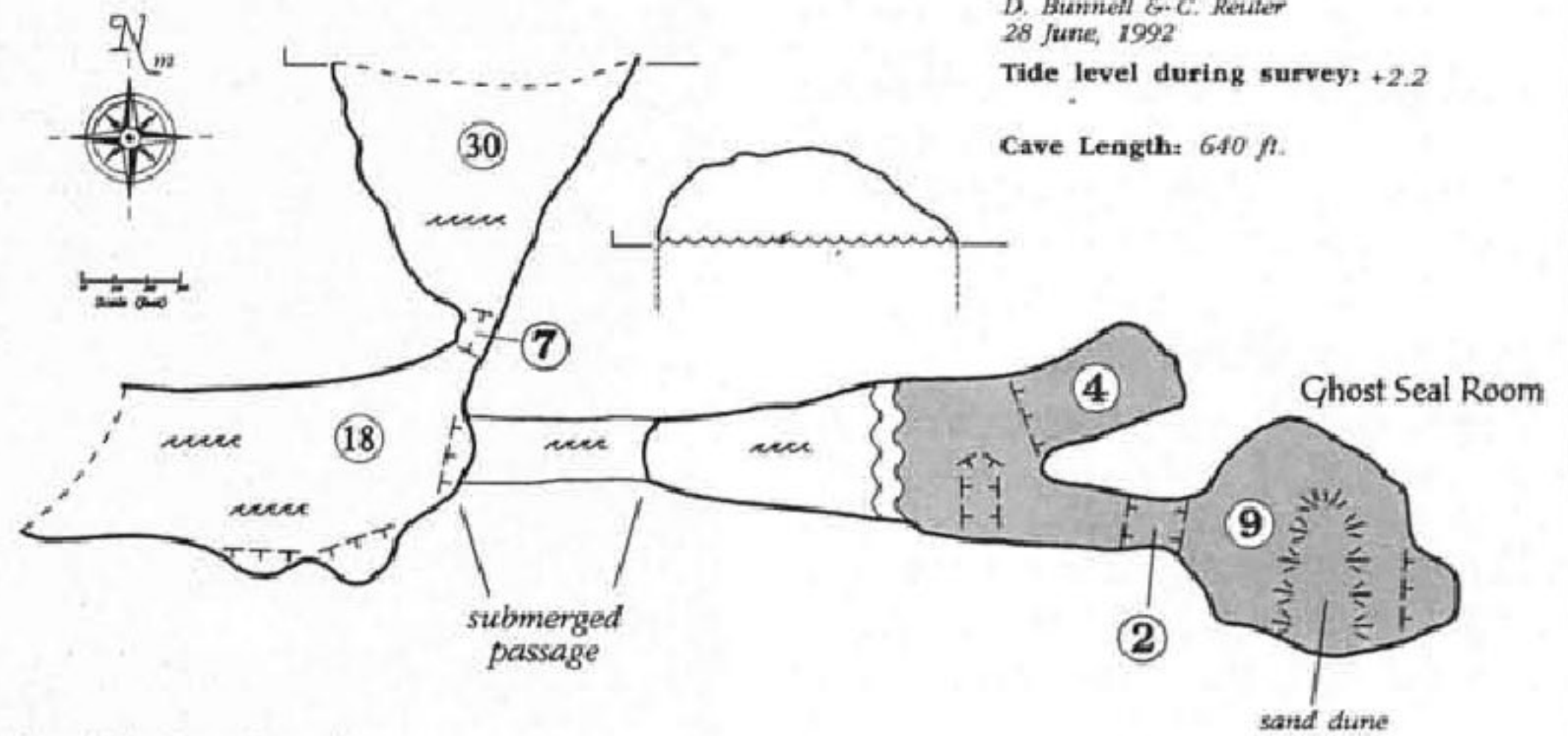
Tide level during survey: +2.5

Compass and dive line survey by:

D. Bunnell & C. Reuter  
28 June, 1992

Tide level during survey: +2.2

Cave Length: 640 ft.



Produced by Dave Bunnell

wait, but not before hearing what appeared to be barking seals from some unknown void beyond. (I had visions of being wedged in a crack with a herd of angry seals trying to get by me in their panic to flee the cave.) This lead also had its day.

The occasion was a visit by several Swiss caving friends who wanted to know what sea caving was all about. Thus in September of 1988 I was again in the water in front of the cave with Ernie Garza and two of Switzerland's most "hard-core" cavers, Philippe Rouiller and Pierre-Yves Jeanen. Not to be seen as a wimp by such distinguished company, I plunged ahead into darkness, bobbing up and down in the swell and knowing they would surely follow (even Ernie followed along eventually). The fissure continued on for a good 150 ft and then, beyond all reason (sea caves don't usually do things like this, do they?), opened up into a totally dark chamber over 100 ft long, 50 ft wide, and 50 ft high! Beyond another constriction was a cobble-floored chamber 50 ft long which had the unmistakable odor of seal excrement, though none were present. There was also a side passage of almost 100 ft trending back to another beach, developed along an intersecting fault. It took some time to map this, and all of us had the feeling of having discovered something special. The cave mapped out to 577 feet, and I think the Swiss were quite impressed by this introduction to sea caving.

## The "Seal's Secret" Is Revealed —July 1992

Let me now jump ahead four years. During most of this time I was surveying caves on Anacapa and Santa Rosa Islands (see below) and hadn't even been back to Santa Cruz. In recent months the park had been supporting the survey project by providing transportation to the islands on their large boats. The need for me to maintain my own boat seemed to be past. As I planned to put the Island Caver up for sale, I thought it appropriate that her last voyage should unravel the mystery of Seal's Secret Cave. Could it really connect to Painted Cave? The prospect of doubling the passage length of what was

already the world's longest sea cave was too good to pass up.

A sunny July day found Djuna Bewley, Ward Foeller (a caver visiting from the east), Carl Reuter and I piloting towards Seals' Secret Cave. Conditions looked good, and soon after anchoring Carl and I kitted up for the dive. I was treating this as a full-blown cave dive, since we didn't know whether our passage would submerge again, and even 75 ft of submerged passage can get you into trouble. I was also anticipating the possibility that our passage might submerge again on its way towards Painted. We had three lights each, including my 50 watt DiveRite light. I also had my large dive reel with 500 ft of line. Since the entrance of the passage had nothing to tie this off to, I brought a large weight to tie it to, which Djuna carried over in one of our sea kayaks to where we would start the dive.

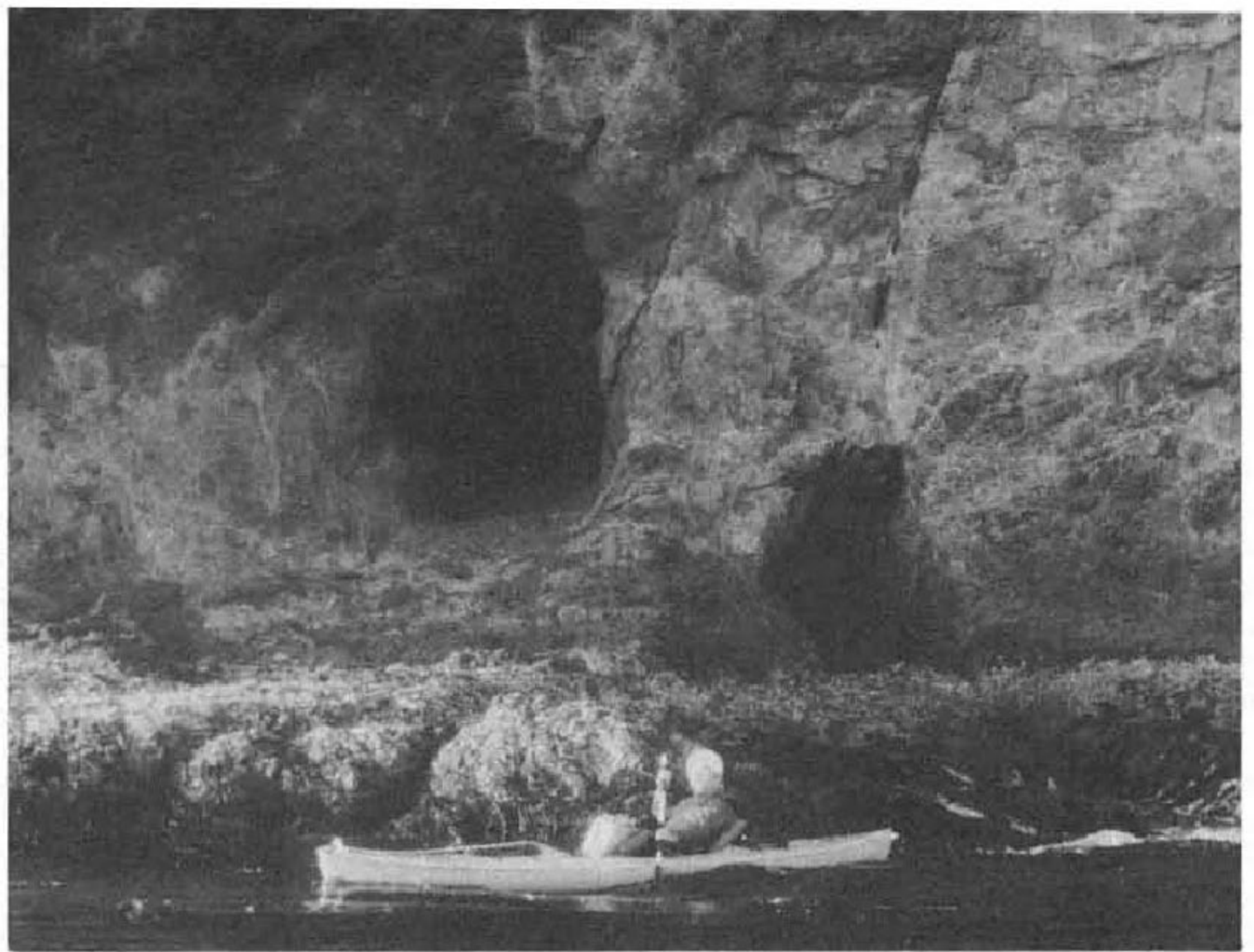
After locating the submerged tunnel, Carl and I forged on in crystal-clear water. Surfacing with my big light, I could see down the passage about 100 ft to a beach crowded with barking seals; some of them were the largest I'd ever seen. Frightened by my light, they began thundering into the water. We swam up and landed on the beach, where Carl removed his tank and weight belt. I, however, found the air so foul from accumulated seal excrement, that I chose to keep my tank on. There were a couple of passages heading from the beach, but they appeared short. One contained a couple of seals lying on their side. We decided these were more likely dead than

asleep. On the right side of the passage was a low area with blackness beyond. Carl, being unencumbered, scampered on through. After a minute or so he came rushing back, gasping for air, and heading for his tank. After he had some fresh air, he said there was a large room there with very foul air. I decided I couldn't miss this, so I crawled through, tank, weightbelt, large light and all. I was glad I did, because this was one of the strangest places I've ever seen in a sea cave. This large room had a sand dune in its center, copious orange and red flowstone on its walls, and numerous stalactites. The strangest thing was the ghostly white remains of seals on the floor. These seals must have crawled back here to die, leaving only a white powdery residue behind. This chamber is so far from the surf zone that it has probably been dry for hundreds of years.

Regretably, we weren't prepared for a formal survey (we'd left the tape behind—too much gear to carry). Moreover, I'd been sucking air while exploring and had to save two-thirds for the trip out by cave diving rules. But I had a compass and slate, and my line had knots every 100 feet, so I was able to estimate distances. By my estimates, we extended the cave (previously 260 ft surveyed) some 300 linear feet. Adding in a 40 ft side passage, that makes the cave a respectable 600 ft or so. It may not seem long by limestone standards, but there was a lot of adventure packed into that 600 feet.

On the way out Carl was about to dive along the right wall into an apparent

Ernie Garza paddling in front of Respiring Chimney Cave, Anacapa Island.



passage until I reminded him that the dive line was in another passage on the left wall. So there may be more secrets left in this cave after all...

### Anacapa Island

The Anacapas are a group of three small islets, and are the most rugged and island-like of the group. The shoreline is composed entirely of 150- to 200-ft-high volcanic cliffs, with a few beaches appearing at low tide. I've been concentrating

on this island steadily for the last four years and recently completed the survey of all of its caves. I'm fairly certain we didn't miss anything, thanks to the close scouting capabilities afforded by our Scupper sea kayaks, which proved invaluable. The total survey came to over 20,520 ft in 135 caves, yielding an average cave length of 152 feet. This information has just been published in book form (*Sea Caves of Anacapa Island*, by Dave Bunnell; McNally & Loftin, 1993). Like Santa Cruz, Anacapa was full of surprises for us:

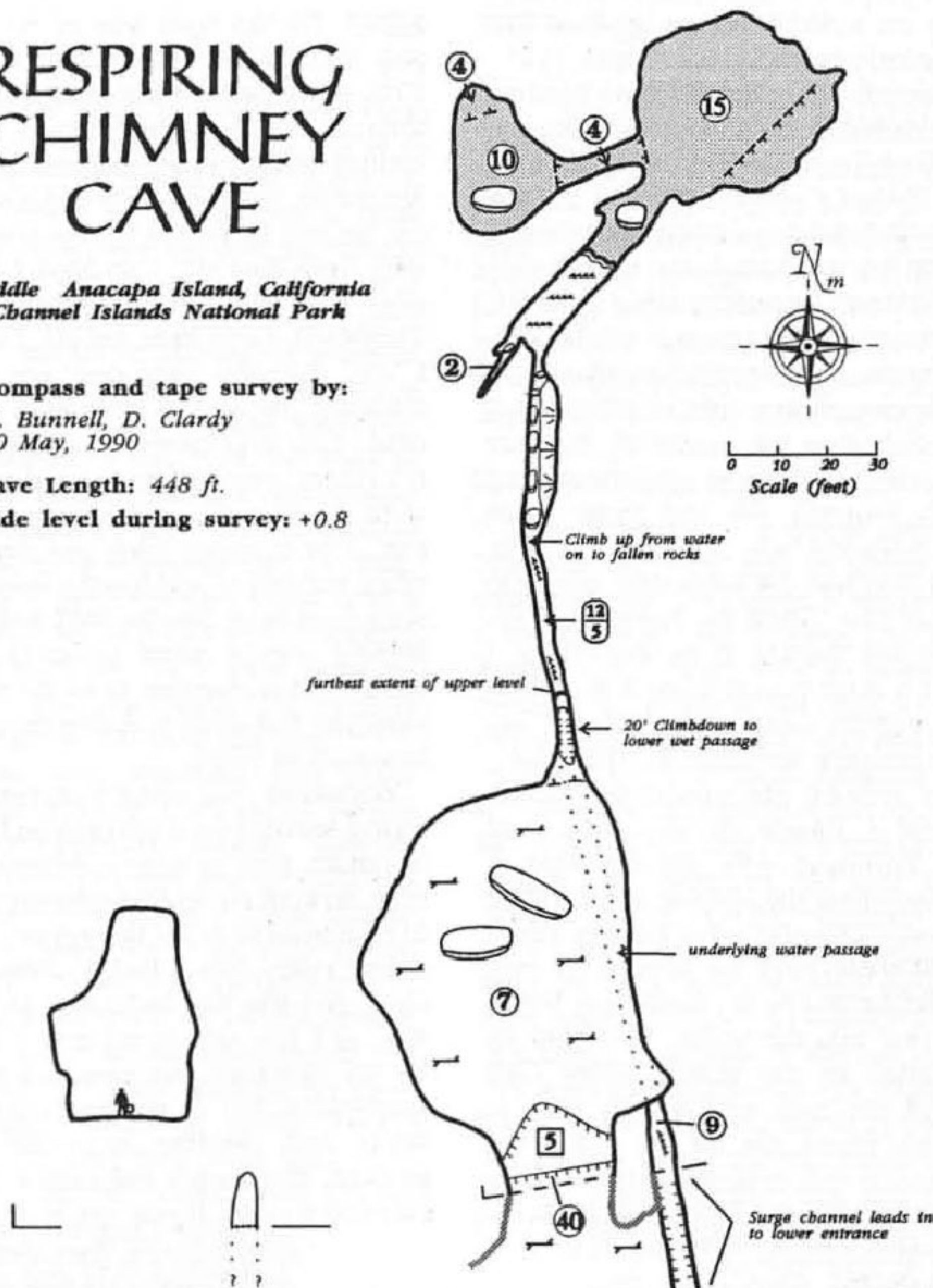
## RESPIRING CHIMNEY CAVE

Middle Anacapa Island, California  
Channel Islands National Park

Compass and tape survey by:  
D. Bunnell, D. Clardy  
20 May, 1990

Cave Length: 448 ft.

Tide level during survey: +0.8



Produced by Dave Bunnell

### Respiring Chimney Cave

On a crisp, windy day, Dan Clardy and I decided to investigate some high and dry entrances above a broad bench of rock just west of the Fish Camp Anchorage on Middle Anacapa. We had left the Island Caver behind and were traveling in my Scupper sea kayaks.

Landing was easy, and since the tide was low, there was plenty of rock to pull the 'yaks up on. We approached what appeared to be your typical relict sea cave, about 20 ft vertical above the water. There are lots of these on the island, usually just small chambers under 100 ft long, so I figured on a pretty quick survey. However, in the back of the room Dan, thought he felt some air moving through a small crevice. We went back to the kayaks to retrieve lights (our survey to this point hadn't required a light) and peered down what seemed to be a very long drop to water.

Dan chimneyed down first, loose rock splashing down into the water below. He



Don Morris admires the propellor washed into Shipwreck Cave, Anacapa Island.



yelled up that there was deep water and lobsters below! I quickly followed and when I got down, was surprised to see light filtering through from a lower, apparently submerged entrance. Despite the sea cavers oath (Take nothing but pictures, leave nothing but footprints, eat nothing but lobster), we ignored the lobster and proceeded deeper into virgin (?) cave. We waded through deep water for about 50 ft to where we could climb up to some chockstones wedged over the water. This led another 40 ft back to the water and beyond that, a constriction. Surely the cave must end soon, or could this be the mythical "cave that goes all the way through the island"? We popped into a nice, sand-floored 40 ft by 40 ft chamber, the type seals usually like to use, but not this one—it is probably too far into the cliffs for them. A crawlway on the left opened into a second, smaller chamber containing some stalactites. Our survey of the cave netted 448 feet.

### Shipwreck Cave

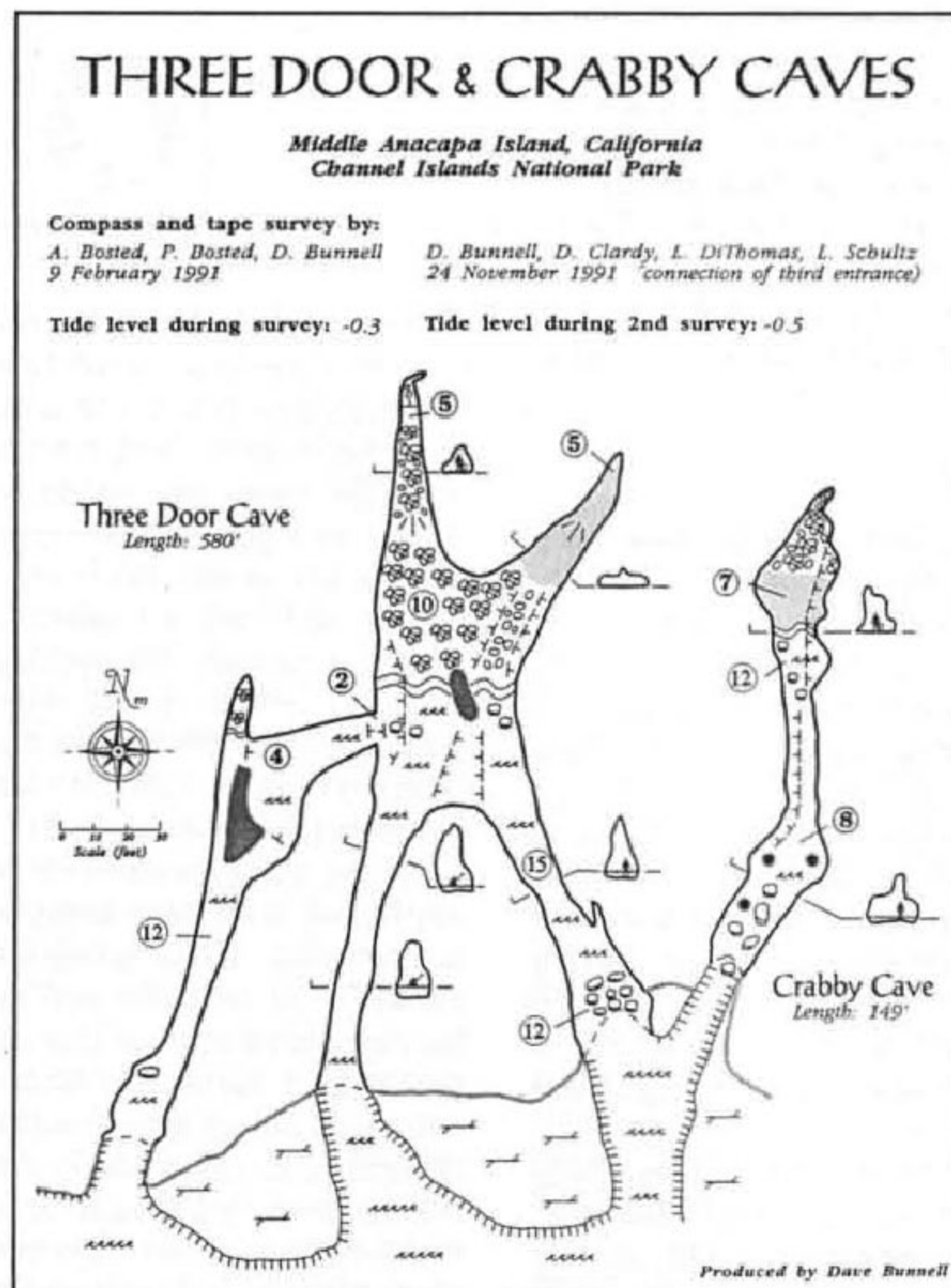
We've found pieces of boat in many caves, but the most spectacular find came on a weekend in late November when Dan Clardy, Lysa DeThomas, Lori Schultz and I were poking around at the numerous entrances near Fish Camp Anchorage on Middle Anacapa. We had swum ashore and approached a broad cave entrance from the rock benches, involving a 15' downclimb into the surf. We entered a pretty little cave with large colonies of honeycomb worms adorning smoothly sculpted alcoves. More noticeable, though, was a 30' long shaft from what must have been a very large ship. Just beyond, Dan found an object mostly buried in the sand. Feverish digging revealed a large bronze propellor, all 3 lobes intact! The cave ended in a choke of boat debris wedged at the rear. According to park archaeologist and caver Don Morris, this is the wreckage from a vessel called the Equator, which went down in Fish Camp in 1949. After searching for a suitable place to display it, the park service has decided to leave the prop in place, despite its potential value as scrap to the would-be salvager.

The thing is estimated to weigh 750 lbs, so removing it would be a formidable undertaking. Hopefully its location in a National Park will afford it protection.

### An Unexpected Connection

On the second day of the same trip, we had another surprise coming. Just down the coast was a large cave with two

entrances (Two Door Cave) that I had surveyed out to 415 ft with the Bosteds. Today we were poking into a nearby entrance, which led down 100 ft of passage to a broad, low area divided by a pillar. Forging ahead with the tape, Lysa DeThomas announced that she saw light. "No way," I yelled back, "it must be a reflection from your light." Sure enough,





The impressive main passage of Catacombs Cave.

though, Lysa had found a tiny crawl through which light was visible. Crawling through was a matter of timing, since the two-foot-high passage filled completely with each incoming swell! Crawling through, we emerged from under a low ceilinged area into the main passage of what was now Three Door Cave. Either the tide and swell had been just a little high the day we mapped the other cave, or this connection had opened up in the winter storms.

### The Catacombs

On the north shore of East Anacapa is a cove whose cliffs show an unusual density of faulting. A group consisting of Djuna Bewley, Nancy Pistole, Bob Richards, and myself landed on some talus in front of some entrances here. The first thing we noted was the heavily rusted wreckage of some sort of Model-T vintage truck. It almost seemed fused to the lava. The left-most entrance at first appeared to be simply a 60-ft-long passage ending in breakdown, but the view from the breakdown gave us our first surprise: a drop-off into a water-filled passage some 10 ft below.

After negotiating this tricky little climb, we surveyed on through the lake, noting light coming in from a side passage along the way. Past a second pool

the passage grew to 18 ft in height and we entered a moderate-sized room. A large boulder concealed a low continuation of the main passage. Nancy began to lead in with the tape, but suddenly hesitated: there was a pair of glowing eyes staring back at her in the crawlway! This was a harbor seal, and he appeared ready to stand his ground. We speculated that he must have come in at a high tide, as he was now over 200 ft from the ocean! We opted to leave him be for now and continued to survey the rest of the cave.

As the survey continued we were all impressed with how complex the cave was proving. I was going nuts trying to sketch it all properly and regretted not having a protractor available to plot the points as I went. We found two more entrances, one of which required a couple of tight squeezes to reach. We also found one entrance that must have connected at one time but was now blocked by a large piece of driftwood wedged by rocks. The

western entrance involved an exit through the surf.

A month later, Bill Liebman and I returned to take photos and to try and push the seal's passage. Surprisingly, there was still a seal in residence. I suggested that Bill push ahead in the narrow passage and see if he could get the seal to retreat. (A good project leader knows how to delegate responsibility amongst project members.) The seal stood his ground until Bill was within a couple of feet, then retreated into the room beyond. We surveyed through and found an unexpectedly large (40-ft-long), sandy-floored chamber where our poor seal was cowering in the rear. We tried not to bother him, as it is our general policy to avoid disturbing pinnipeds, but as soon as we left the crawl he dashed past. This remarkable cave surveyed out to 808 feet, the second largest of the Channel Island caves. It has formed along the intersections of at least five faults.

