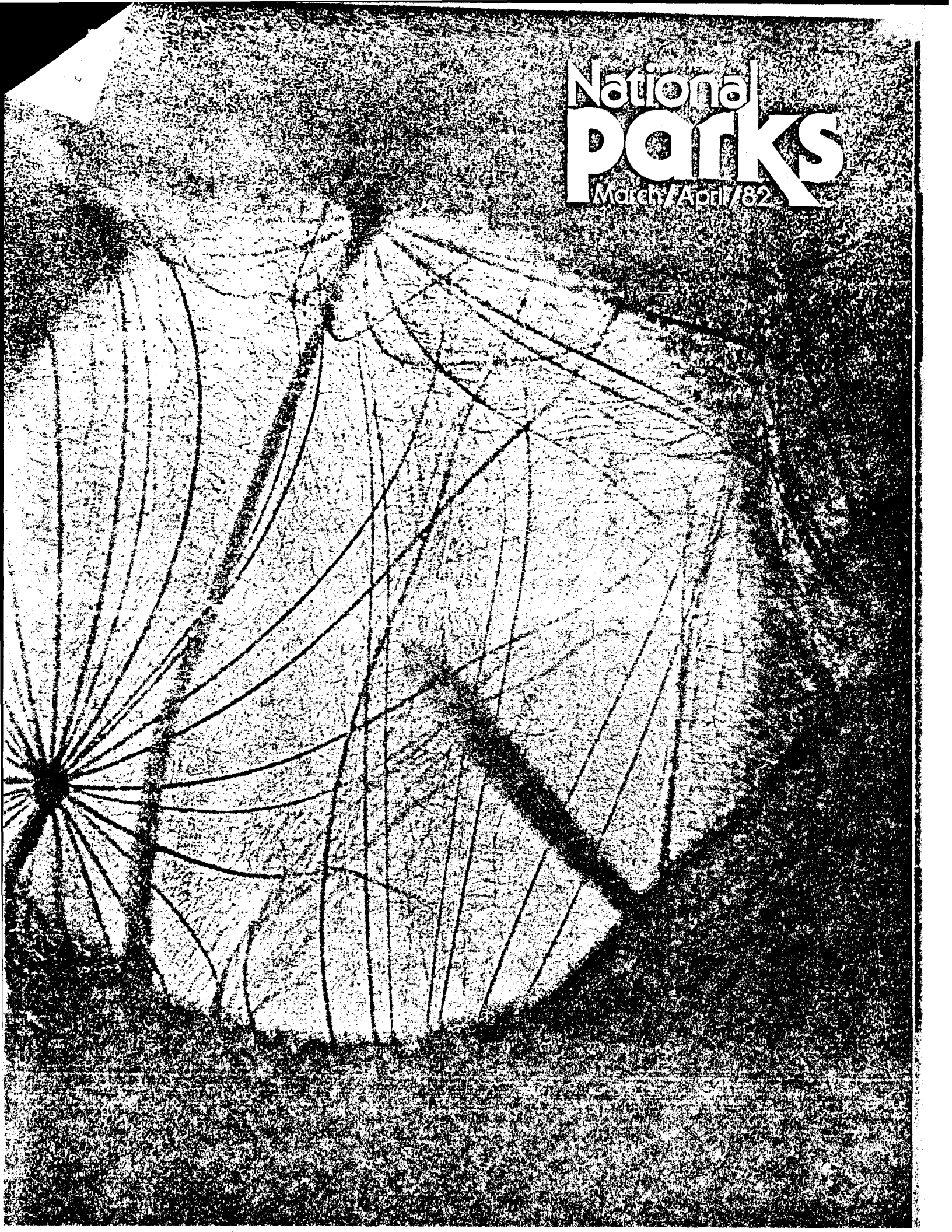


National parks

March/April 82



National Parks

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National Parks & Conservation Association—established in 1919 by Robert Sterling Yard with the support of Stephen Mather, the first Director of the National Park Service—is an independent, private, nonprofit, public service organization, educational and scientific in character. Its responsibilities relate primarily to protecting, promoting, and enlarging the National Park System, in which it endeavors to cooperate with the National Park Service while functioning as a constructive critic. Life memberships are \$1000. Annual membership dues, which include a \$7 subscription to *National Parks*, are \$150 Sustaining, \$75 Supporting, \$30 Contributing, \$22 Cooperating, and \$15 Associate. Student memberships are \$10. Single copies are \$3. Contributions and bequests are needed to carry on our work. Dues in excess of \$7 and contributions are deductible from federal taxable incomes, and gifts and bequests are deductible for federal gift and estate tax purposes. Mail member-

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Mary Maruca

The Submerged Cultural Resources Unit
protects Park Service shipwrecks and other . . .

Treasures of the



National Park Service

Larry Murphy and Jerry Livingston set trail markers on the *Monarch* (above);
while Toni Carrell monitors their progress from the dive boat (right).

When the mighty bulk of the freighter, *Emperor*, failed to dock on schedule, the townspeople of northern Michigan panicked. Had the ship been late leaving port? Had it been delayed by the weather? Or had the worst happened—had it broken up on a reef, taking cargo, sailors, and all to the bottom of Lake Superior? To the agony of relatives and well-wishers, this last was the answer: *Emperor* sank off Isle Royale June 4, 1947; of the thirty-six people on board, twelve were dead.

The waters off Isle Royale have long been known for such treachery. Ships older than the *Emperor* and perhaps more famous have gone down, ships mourned like family and remembered: *America*, wrecked in a snowstorm off Isle Royale, December 1906; *Algoma*, grounded on Greenstone Island, November 1885, forty-five dead; *Kamloops*, lost December 7, 1927, all the crew dead. The names of these ships read like tombstones. Though each is now lost to "landlubbers," scuba divers are penetrating the chilly depths for the chance to explore these underwater behemoths. Scuba diving has lifted the shroud off the deep and has made exploration of shipwrecks one of the hottest forms of entertainment for the recreational diver—and a major management headache for the National Park Service.

Deep

There's something mysteriously seductive about a dive into the dark, murky waters off Isle Royale, a sense of excitement that builds the more one explores the depths. Isle Royale National Park, a scattering of green islands ensconced in Lake Superior blue, has none of the incredible coral displays or the rainbow array of fish visible in southern waters. Rather, there's something darker about its appeal as well as its treasures. Lake Superior is not a place for casual divers or divers used to warmer climates. But the rewards for divers skilled enough to take the plunge are outstanding.

"You're dropping down through the darkness . . . and you see it—the *Emperor*," says dive boat operator, Larry Sand, with a hint of awe in his voice. "I don't care what you've got your air consumption down to, you're going to take in air . . . it's that impressive."

The lure of such a moment can't help but become addictive; divers return again and again to these artifact-laden time capsules. There is, however, a danger in almost every addiction: underwater, with no one to see or disapprove, divers can easily become souvenir hunters. With anchors, broken china, and other relics of the past tempting divers, the legacy of many becomes the property of one. Providing the maximum



National Park Service

enjoyment to divers while minimizing loss of resources is a dilemma facing National Park Service managers. What many people don't realize is that the Park System includes enough shipwrecks in its coastal waters to make protection a sizeable problem.

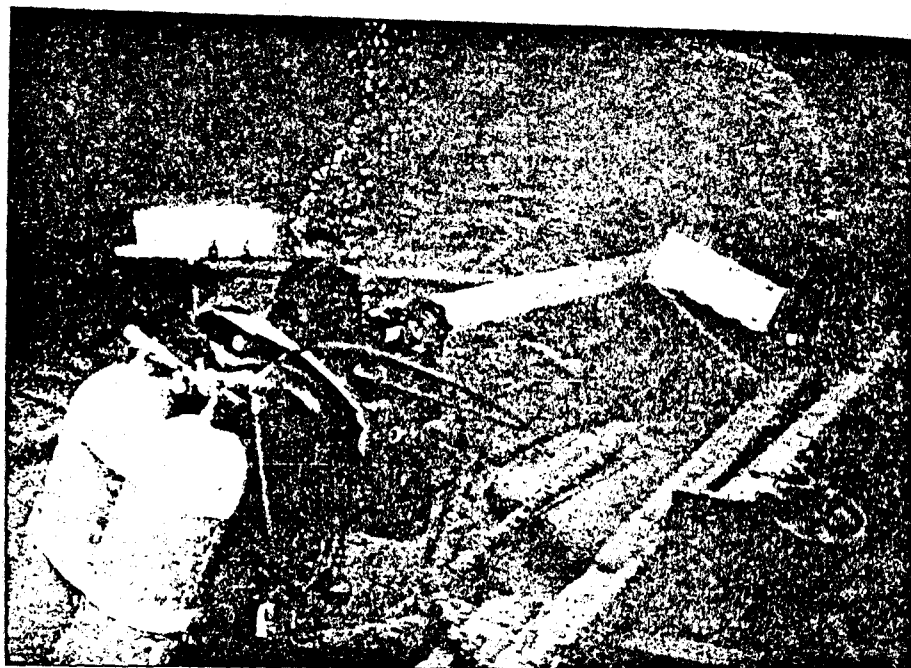
"The Park System's got the whole gamut of shipwrecks," says Dan Lenihan, the dynamic chief of the Park Service's Submerged Cultural Resources Unit (SCRU), "from wrecks in shallow water that are beaten to pieces, to wrecks that maintain their structural integrity." Resources are resources, whether above or below sea level, and the National Park Service is as responsi-

ble for protecting shipwrecks as it is for protecting the historic houses and prehistoric sites under its jurisdiction.

The National Park Service is authorized to protect cultural and natural resources under laws that first established it as a federal agency. The Antiquities Act of 1906, the Organic Act of 1916, and the body of successive resource protection legislation provide the foundation for Lenihan's program.

Others have already fought important legal battles in support of protecting shipwrecks. One especially sensitive case is the shipwreck found in the waters of Biscayne National Park. Both the federal govern-

Protecting submerged Park Service property requires thorough research: Ranger Dennis Pritchard examines a paddlewheel during his inventory of the *Cumberland* (below); SCRU archeologist Toni Carrell documents the *Monarch* (right); and Park Service architect Tom McGrath and Ranger Chuck Dale map the remains of the *Monarch* (opposite).



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ment and treasure salvagers have claimed the vessel—the salvagers on the basis of finders' rights, the government by right of its location on federal property. Should the decision go against the government, shipwrecks will be increasingly vulnerable to the ravages of treasure hunters. In Florida, for instance, legislation is ineffectual at best. Following the *Atocha* decision, which turned the wreck of a seventeenth-century Spanish galleon over to Treasure Salvors, Inc., the state has

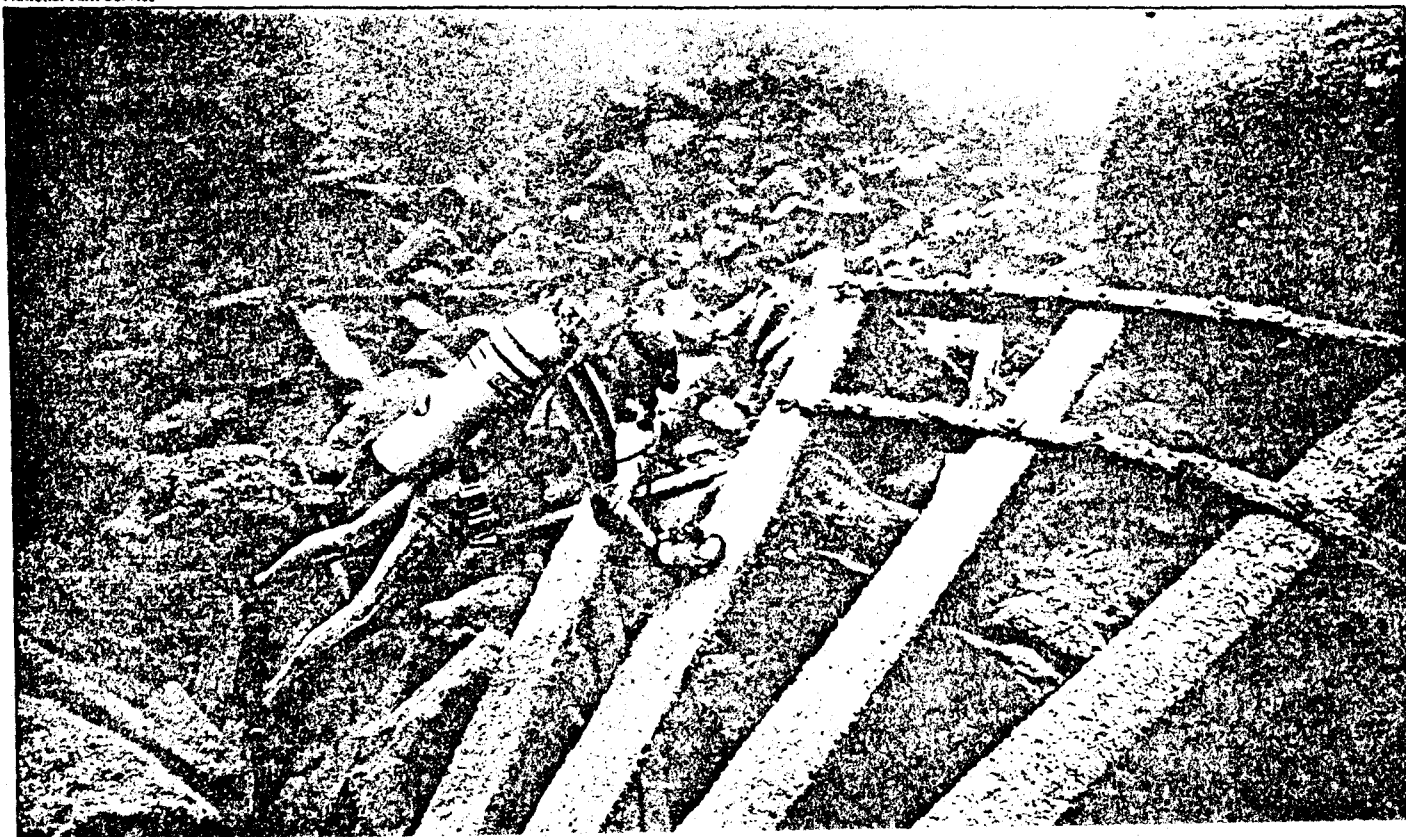
lost much control over its underwater resources. Now in Texas, Michigan, and California (which is setting up a series of coastal marine parks) the pressure is on to pass enabling legislation that will prevent similar incidents.

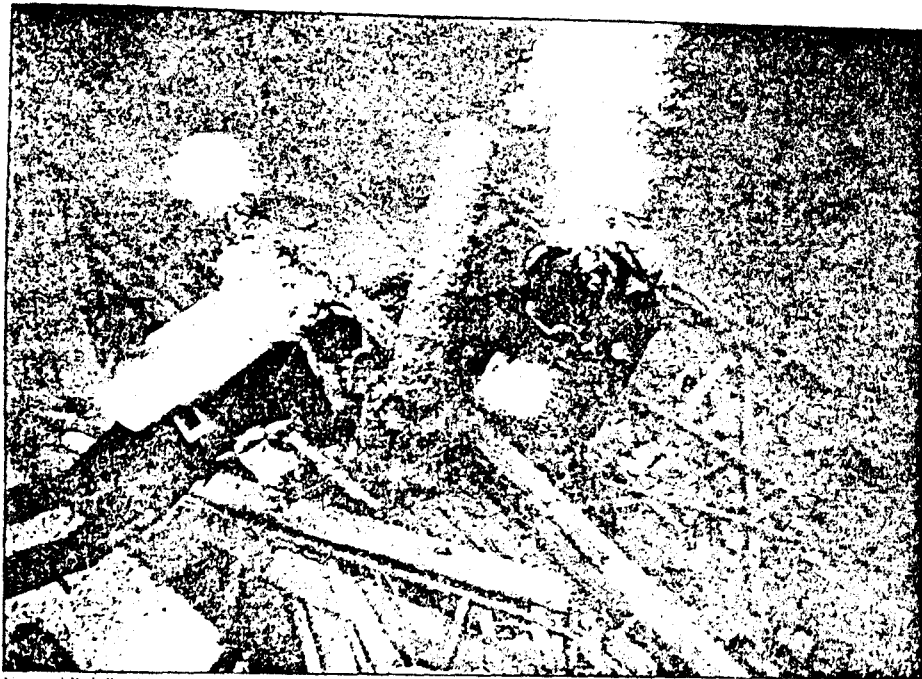
The federal government has become increasingly involved in the protection of underwater resources during the past decade. The pioneering efforts of Park Service employees George Fischer (a research archeologist) and Cal Cummings (Denver

Service Center's Midwest/Rocky Mountain team leader) began the chain of events resulting in the initiation of Dan Lenihan's program in the spring of 1980.

Lenihan feels strongly about Park Service responsibilities toward wrecks; so strongly, in fact, one almost suspects some nineteenth-century sea captain's blood churns in his veins. He, Toni Carrell, and Larry Murphy comprise a team of divers with a strong dedication to underwater resources. They are all under-

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water archeologists, a profession rare in the Park Service. Ironically, their headquarters are in landlocked Santa Fe, New Mexico; but the unit is mobile and may be found anywhere from the Florida Keys to Isle Royale to Guam. They work directly with the parks at the invitation of individual park superintendents, who enthusiastically support the SCRU's work when they are able.

"A lot of park managers know they have shipwrecks, but they're often not priorities," Lenihan emphasizes, "because they have a whole range of other problems they're held accountable for by the Park Service."

Also, few parks have the SCRU's equipment and know-how, both of which are necessary for protecting underwater resources. Each team member is an archeologist and has received certification as a diving instructor, which entails fulfilling rigorous courses in diving techniques and performing a variety of dives in different extremes of temperature and visibility. Different types of dive conditions require different types of equipment. At Isle Royale, for example, a suit that insulates against the cold is essential. Unlike wet suits, which are common to warm-water dives and use a layer of water between the suit and the skin as insulation, the bulky, thermal dry

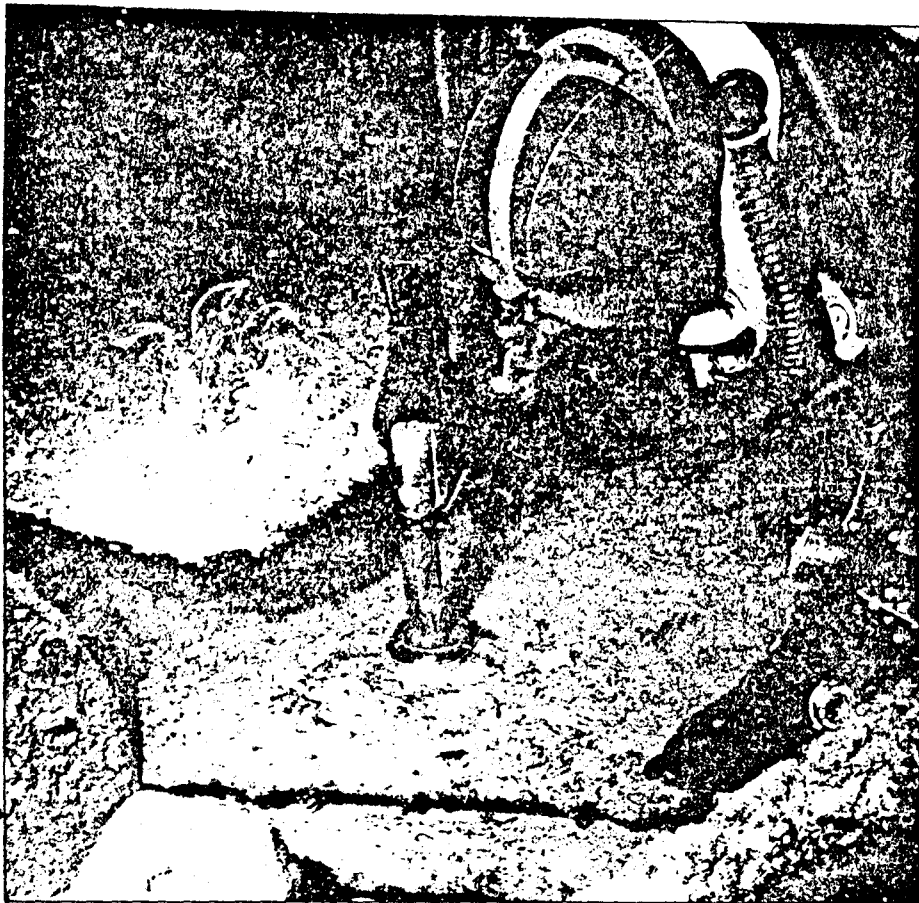
suit is watertight. The waters off Isle Royale are inhumane cold. Temperatures range anywhere from fifty degrees Fahrenheit to the lower thirties. In such chilly conditions, even the watertight Unisuits do not totally insulate. The divers pull on three layers of thermal underwear and two sets of heavy woolen socks before squeezing their bulk into the Unisuits. The suits are so cumbersome that the divers must help each other fasten the locking zippers. Flippers, masks, air tanks, and gloves are added on the deck of the dive boat. Suited up and well briefed on their individual tasks, they splash into the chilly Lake Superior waters and—they are gone.

Dropping down past the surface of the water into the twilight beyond is like entering a foreign country where speaking the language is crucial. The divers must know how to perform their various tasks safely, without wasting valuable research time. Silt, cramped passageways, jagged metal—all are obstacles as they explore and inventory a wreck. After a brief reconnaissance, video and still cameras go to work. Video cameras, portable above water and practically featherweight below, allow the team to make extensive visual records of wreck conditions (a particularly pressing need for most parks, many of which have no way

of knowing exactly where a wreck is, much less what it looks like). The diver making the video tape is easily distinguished by his head gear, a saffron yellow globe faintly resembling a crash helmet. The watertight globe contains a built-in microphone that an "umbilical" line connects with a tape recorder topside. Simultaneously, he aims the portable camera, describes what he sees, and those aboard the ship instantly receive both words and pictures. The videotape documents the condition of a ship and its contents: should objects of cultural value disappear, at least a visual record will remain.

While the cameraman covers the wreckage, other divers diagram and identify what they see. During one particular study, Jerry Livingston, a Park Service scientific illustrator from Albuquerque, and Tom McGrath, a burly architect from the Park Service's Denver offices, mapped the scattered timbers of the *Monarch*, a 240-foot freighter downed in Lake Superior during a snowstorm. Livingston sketched the details of portholes and timbers as well as the position of artifacts in the water while McGrath outlined the larger units of the wreckage and their relative position to each other.

"It took them several dives to figure out where everything was," ex-



National Park Service.

plains Larry Murphy. "It went from a jumble of timbers to a vessel to a story. It became a process of discovery." The SCRU labored for hours over sketches penned underwater. They checked and rechecked measurements, poured over period drawings of Great Lakes vessels, and hypothesized the way in which the *Monarch* might have hit Palisades Cliff in order to produce the underwater scatter. Gradually, a map took shape that increasingly resembled the pattern of timbers on the lake floor.

"If you can translate what you see in a coherent fashion, it lets the people who can't even dive understand what's down there," says Tom McGrath. The team plotted a trail along the length of the ship and used numbered plastic cards to identify the wreck's features. These numbers correspond to a trail guide printed on special waterproof paper. The trail is intended to help sport divers understand what they are seeing and enhance, rather than interfere with, the dive experience. As Larry Mur-

phy puts it, "When you can still feel the presence of those who were aboard the ship, then the experience is really enhanced."

The dives are long for these cold waters—anywhere from forty-five to ninety minutes—and the cold burns up calories that must be replenished once the divers surface and return to shipboard. Surfacing becomes something of a communal experience, a time for eating, relaxing, and sharing excitement. The exertion of the dive and the work involved makes the divers ravenous; a steady supply of carbohydrates is necessary to raise the divers' blood-sugar level, so peanut butter, jelly, rye crackers, and dried fruits disappear at phenomenal rates. Warmed and fed, the divers cluster together to discuss—what else but diving? They recount memories of warmer waters and stories about territorial sharks, curious jewfish, first dives.

Dan Lenihan stares off into the distance, recalling his first warm-water dive: "It was so damn beautiful I almost forgot to come back up."

Larry Murphy bolts in a marker post for the *Monarch's* interpretive trail stop #6 (left), and the Submerged Cultural Resources Unit suits up for yet another dive into the chill Lake Superior waters off Isle Royale (right).

Another time, he and Larry Murphy went cave diving. "We swam for what must have been a quarter of a mile down a long channel. We came up into a room that you could have built a ten-story building in."

Studying a wreck, the divers often work eighteen-hour days with no time off for weekends, but even under such pressure their passion for diving doesn't flag. "I get a different experience on every dive," says Toni Carrell. "It's a hard thing to put into words, but I think one of the most exciting things for me is to pick up a prehistoric tool and to realize that another human being made it, used it, and eventually lost it. That tie with the past—how they saw the world—is what drew me to archeology. Later, when I learned how to scuba dive, it was like somebody turned on the light. I decided there had to be a way to bring archeology and scuba together."

After an evening of diving stories, with the lake all around and uncountable treasures below, one begins to think differently about shipwrecks and their protection. Such a change of thinking is indeed a major goal of the SCRU, and they are beginning to see some positive steps in that direction. When divers feel the specialness of what is beneath the surface of the water, they generally report attempts to remove artifacts or to deface the wreck.

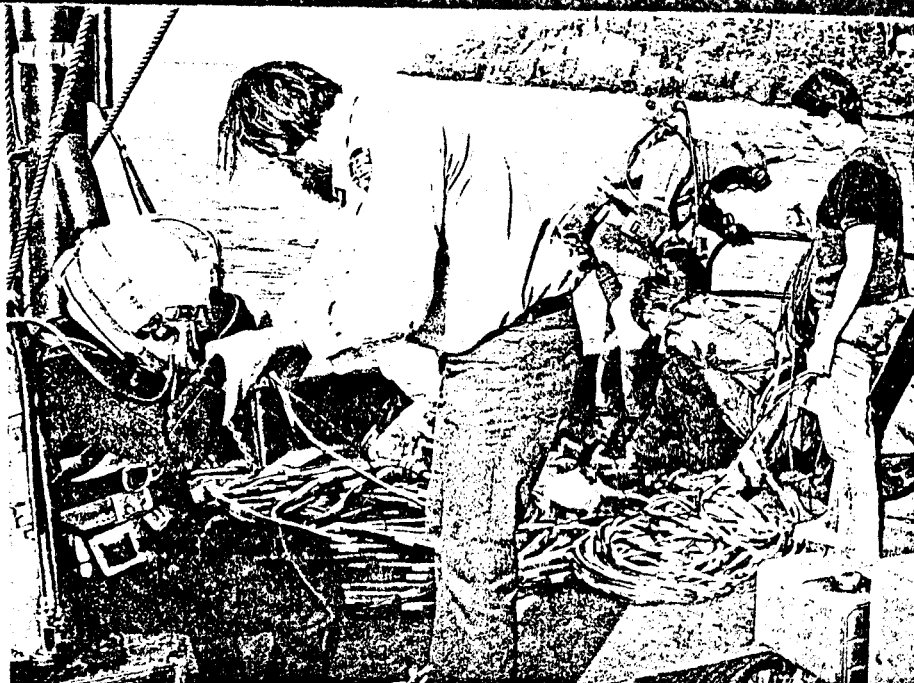
"People are beginning to enjoy the wrecks and protect them," says Larry Murphy. "We tell them *they*

should take care of the wrecks, not just the rangers. The rangers can't do it alone."

When members of a dive club anchor in the same area as the team, Dan, Larry, or Toni sit down with them and willingly answer their questions. "They'll go back to their club and tell them what they saw. They'll be hardcore preservationists by the end of the day. They'll be leaving Isle Royale with a concept, a real understanding of what's down there and the importance of preserving it," explains Larry Murphy.

Part of this positive reaction among divers comes from the team's own standing in the sports diving community. "We're not coming to them as bureaucrats," says Lenihan. "Because of our experience, we can get up and say things others can't."

A few days later, the team sat down with a group of divers who had just surfaced from the *Monarch* trail. One of the group proudly re-



Larry Murphy assists a diver, by National Park Service

ported a shoe he had found on the vessel, then had carefully replaced. Such a conservation effort may not keep all the anchors off living-room walls, but in the eyes of the Submerged Cultural Resources Unit it was a good first step.

Mary Maruca works with the National Park Service's Cultural Resources Management division as a writer and editor. She is also working on a film and has written several screenplays.

Diving in the Parks: Where to Begin

Sport diving is still so new an activity to the National Park Service that a comprehensive list of parks where you can dive is not yet available. Suffice it to say that the list would be long. The best way to find out about diving in the parks is to write the superintendent of individual parks for information on permits, registration and available resources and services. A cautionary note: you must be a qualified diver. The accompanying list represents some of the different types of diving available in the Park System, from exploring wrecks and reefs to sport diving in man-made reservoirs.

Isle Royale National Park, 87 N. Ripley St., Houghton, MI 49931. Freshwater scuba diving in the cold waters of Lake Superior requires stamina and experience. The rewards are the well-preserved shipwrecks, including the Park System's only interpretively marked wreck, the *Monarch*.

Biscayne National Park, Box 1369, Homestead, FL 33030. Until

the legal battle concerning ownership of the Spanish galleon in Biscayne's waters is resolved, the eighteenth-century shipwreck will remain off limits. However, the park includes 100,000 acres of water to explore and reefs and tropical fish in abundance. On the Atlantic Ocean side one can see elkhorn, star, and brain corals in four marked areas. On the Biscayne Bay side divers can view sponges, soft corals, crabs, and protected lobsters. A map and a guide are available.

Buck Island Reef National Monument, Box 160, Christiansted, St. Croix, VI 00820. The reef here is separated from the island by a lagoon that contains two self-guiding underwater trails describing fish and reef ecology. Divers can examine an elkhorn coral forest and observe diverse fishes, such as angelfish, parrotfish, damselfish, and yellowtails.

Acadia National Park, Route 1, Box 1, Bar Harbor, ME 04609. The diving here is an example of what you'll find in a colder salt-water environment. Because of the Labrador Current, the waters here never get above fifty-five degrees Fahrenheit,

but marine life abounds. Poisonous red Arctic jellyfish, sea stars, sea cucumbers, sea urchins, anemones, hermit and rock crabs, scallops, and flounder are all part of the underwater community. A diving guide is available.

Glen Canyon National Recreation Area, Box 1507, Page, AZ 86040. It has been called a diver's Pandora's Box. Watch out for cold water, altitude diving, and the main current of the Colorado River. However, if your objective is getting underwater, this reservoir offers excellent wall diving and many caves. Submerged, but still protected, archeological sites are scattered throughout this underwater world.

Channel Islands National Monument, 1699 Anchors Way Dr., Ventura, CA 93003. Anchored on the Pacific Ocean bottom, the kelp rise from their "roots" sixty to one hundred feet to reach the water's surface and sunlight. Divers here can see many kinds of fish and shellfish. Diving in the kelp forests has been compared to "walking through a grove of redwoods with the sun filtering through."