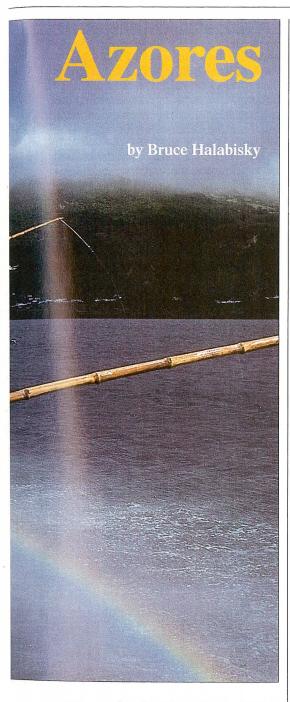


Like a river the warm current of the Gulf Stream flows across the Atlantic Ocean carrying fish from the waters of the Caribbean. Moving clockwise, it heads up along the United States' eastern seaboard, across the deep Atlantic and then turns south, sweeping the coast of Europe. Before reaching the European continent, the Gulf Stream passes a plateau formed by nine volcanic islands. These islands, called the Açores (Azores), are the site of upwellings that carry nitrogen-rich water from the deep ocean to the surface where the mixture of sunlight and nutrients triggers large alga blooms. The algae are fed on by zooplankton, which are then preyed upon by small pelagic fish. The small fish are, in turn, eaten by tuna and other predators. Taking advantage of the confluence of the Gulf Stream and the life-giving upwellings fishermen of the Azores ply the waters from April to December in large wooden boats with high bows and powerful engines. Using cane poles and hooks they catch albacore, big-eye, and bonito tuna. In late September 2000 Bruce Halabisky went aboard the "Perola de Santa Cruz" from the Azorean island of Pico to learn more about these men who fish for tuna.



n a Sunday night Perola de Santa Cruz floated at the dock in a heavy downpour. One hundred feet in length, she stood out against the small harbour's high cliffs, halogen floodlights illuminating her hull and superstructure. Eager to get out of the rain, I waited for the ocean surge to ease the boat towards the quay, and jumped aboard. The painted wooden deck was crowded with fishing gear, mostly bamboo cane rods and buckets. I could hear a loud generator below, supplying power to the refrigerators and water pumps. A saltwater tank held spirals of small fish swimming under the artificial light.

I ducked out of the rain, and into the mess hall hoping to find someone on board. The boat was empty. A lacquered painting of the Last Supper hung in a burnt-wood frame above the dining table. Dai-nos senhor o pão nosso de cada dia (give us each day our daily bread) was written in scroll below the seated disciples. A flyer advertised a festival of Jesus Cristo; another showed a painting of Senhor Santo Cristo dos Milagres, complete with

a crown of thorns and stigmata. The only other decoration was a feed-store calendar picturing four pigs eating from a trough.

Just before midnight the captain came aboard. Herculano Manuel Rodrigues had a head of short curly hair, and a neat moustache. He wore a "Ford Trucks" baseball cap and a lined checked shirt. Manuel, as he was called, was with his father - also a fishing

captain though now retired. They stood together with arms crossed while I explained that I was the one who wanted to spend a week aboard the Perola de Santa Cruz to see how they fished for tuna.

Santa Cruz.

"Not many fish," frowned Manuel, speaking in Portuguese, "but you're welcome to come. You can take the bunk above mine up in the wheelhouse. That's where the dolphin observer usually stays."

I fell asleep in the bunk wondering about this dolphin observer. Occasionally, I heard noises on deck from the crew boarding the boat in the early morning hours. I awoke to the smell of cigarette smoke and the sound of the main engines thrown into reverse. From my bunk's porthole, I watched as we backed out of Santa Cruz harbour in the pre-dawn darkness and made our way along the coast of Pico. Only the lights of the island's main road, the estrada principal, lit, up the shoreline.

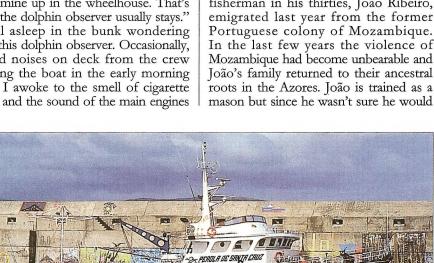
At 7.30a.m. the sky grew lighter and turned from black to grey to red. A glowing pink cloud capped the dark volcanic mass of Pico. As the sun rose,

> we headed into Horta harbour on the neighbouring island of Fayal to fuel up and wait for an official to check over the boat.

> At the dock Perola took on 1,300 gallons of diesel. Fuel is Manuel's greatest cost in running the boat. This year the catch has been so poor that many trips out to sea are not worth their expense. Because Manuel can only offer low wages, he has had

trouble hiring a full crew. An earthquake two years ago, which left 2,000 people homeless, has sparked a housing boom; this has created a labour shortage in the islands.

While Perola fuelled up, I talked with the other crewmembers. All twelve of them were from the island of Pico. One fisherman in his thirties, João Ribeiro, emigrated last year from the former Portuguese colony of Mozambique. In the last few years the violence of Mozambique had become unbearable and João's family returned to their ancestral roots in the Azores. João is trained as a



Herculano Manuel Rodrigues, captain

of the Azorean fishing boat Perola de

Perola de Santa Cruz alongside in Madelena; 100' LOA, she is crewed by twelve Pico islanders. Main picture: Perola's cook, Daniel Dutra, fishing for bonito tuna.



Pouring lead fishing sinkers to be used on the hand lines – with no allowances for "health and safety" the metal was melted down in a beaten-up aluminium carafe on the stove alongside a pot of beef stew.

have steady work he took the fishing job on Manuel's boat for the season. He has a wife and a four-year-old daughter who emigrated with him from Mozambique.

"I ain't never going back," João said with a smile, speaking in broken English. "There, I slept with a shotgun under the bed and we always locked the door. Here in Pico it's calm. No problems, no problems." Despite the security of steady work, João is not always happy to be fishing. The pay is poor and he rarely sees his family.

The season starts in April when the tuna arrive with the Gulf Stream. In the spring, the fish feed over the seamounts surrounding the Azores. The boat stays at sea for up to a month at a time and is often out of sight of land, hundreds of miles from the islands. As the season progresses, the fish come closer to the

archipelago and the trips become shorter, often a week or less. The tuna season continues into November and sometimes even until Christmas. Crewmembers are not paid until the end of the season when they receive a percentage of the ship's gross income. This has been a poor year and João expects to get only about \$3,500 for nine months of work.

Reflecting on his first season as a fisherman, João remarked, "The only good thing is the people and the food. We got a good cooker." In the galley, preparing lunch, was Daniel Dutra, the cook, or "cooker" as João called him. Daniel has always worked on the fishing boats. However, these were to be his last days aboard *Perola*. In a week he was going to cook for one of the inter-island shipping companies. "More money and a regular schedule," he explained while peeling potatoes next to the stove.

As lunch was being prepared, other tasks were taken care of on deck. One crewmember sat on a net repairing it with swift strokes of a fid and line. Someone else was on the working deck cutting off 2" sections of bamboo with a hacksaw. Into these hollow pieces he forced triangular pieces of wire. When he had a dozen assembled, the whole operation moved inside to the galley stove. There,

he heated a small batch of lead in a beatup aluminum carafe. The flame of the gas stove slowly melted the lead. (I tried to push aside the thought of the noxious vapours and lead flakes that were surely mixing with the beef stew on the neighbouring element.) The molten metal was poured into the cane cylinders leaving a corner of wire exposed. As the cane smouldered and the lead cooled I realized that these were to become fishing sinkers for the hand lines.

By the late afternoon, the boat was fuelled, the cook had taken on stores, and the official had checked over the boat's condition. *Perola* headed out into the strait between the islands of Pico and Fayal. Instead of turning north, which had been the original plan, we tucked around the south side of Monte de Guia, a volcanic cone protecting Horta harbour. Before fishing for the tuna, we would net some sardines for bait.

Unfortunately, the fishing did not begin on this day. While surveying the shallow waters off the shore, the captain became ill...violently ill. He fell down from the wheel grasping at his stomach and ordered the ship back to the nearest port. We returned to Horta. When we reached the breakwater, a car met us and whisked the captain away to the hospital.

For the next twenty-four hours the crew and I waited. We never ventured more than a hundred yards from the boat for fear the captain would suddenly appear and the boat would leave without us. Marathon games of dominoes ensued in the saloon. Those not playing watched television. A cookery programme explained how to make the turnip soup eaten on the island of Santa Maria: Daniel was called in from the galley to get some tips. Around the glow of the screen the unshaven fishermen watched Venus Williams defeat Monica in the Olympic tennis semi-finals. Periodically a journalist dismally announced that the Portuguese Olympic

> team had won only a single medal, a bronze, in judo. The crew seemed to take it all in their stride.

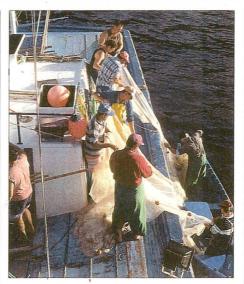
Tuesday morning I awoke again to the smell of cigarette smoke. The captain had returned. "Intestinal problem," he later told me with no further explanation. This time *Perola* went north out of Horta harbour. Manuel believed he would have luck finding tuna between the islands of Pico and São Jorge but before catching the big fish we had to catch some bait.



Netting the Bait-Fish

In the early morning six of the crew, including the captain, were on the bridge, 30' above the water, looking for signs of fish. Four of them peered through longbarrelled binoculars and scanned the water. Manuel had taken Perola out of gear within 300' of the surfline where the schools of sardines would be easy to net in the shallows. Antonio, Manuel's brother and the ship's engineer, worked a hydraulic derrick and with the help of the crew lowered two wooden boats into the ocean. One was 16' long and rigged with an inboard engine. Into this roundbottomed craft piled six crewmembers along with 650' of fine net. The second boat was smaller, 3' shorter in length, and carried three fishermen. It had no motor and only a pair of oars for manoeuvring. What surprised me, amidst the confusion of lowering boats and transferring most of the crew, was that two of the fishermen had donned wetsuits and appeared ready to dive into the Atlantic with snorkel gear.

Rui, a muscular man with Popeye-like forearms, started the inboard diesel and threw a line to the rowing boat. When the two boats had nearly reached the shore, one of the men in wetsuits – a young



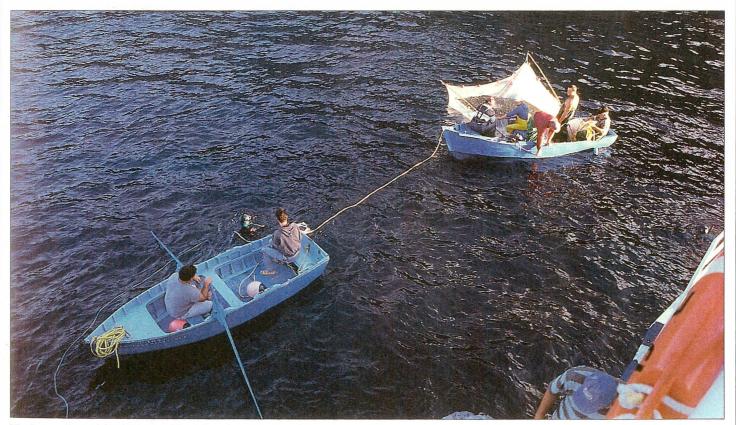
Sardines being hauled in for bait.

man named Paulo who smoked less than the rest of the crew and was in good physical shape — lowered himself into the water. Wearing a snorkel, mask and fins, Paulo grasped the rowing boat's transom. The rowing boat-motorboat flotilla began towing him parallel to the shoreline. With his head underwater, in the clear Azorean seas, Paulo was looking for fish.

The men dragged Paulo back and forth

for nearly half an hour. Finally he raised an arm and circled his hand. The motorboat dropped a buoy and then left the rowing boat astern. In a cloud of exhaust it described a circle of about 100' in diameter, spewing net over the transom until it met the dropped buoy. The fish were trapped. Rui and his crew drew the net into the motorboat while the rowing boat pulled at the net's floats. Paulo and another diver, Valdemiro, both swam within the net's enclosed space diving down to free the lead weights from the rocky bottom and to make sure the fish did not escape from an unseen hole. To reach the sea floor they dived down 20' while the panicked sardines whirled about them like confetti.

Rui's crew strained at the net until they drew it up into a tight ball filled with fish. Working the controls from the bridge, Manuel brought the mother boat alongside the small motorboat. Plumes of scales sloughed off the desperate fish and billowed about the boat. The crew used hand nets to scoop up the sardines and throw them into one of the four live-bait wells on deck. Once the fish were secured in the tanks, the men hoisted the boats on deck and lashed them down on the starboard side.



Netting sardines – the 16' boat with outboard engine tows the smaller, rowing boat which, in turn, tows a wet-suited fisherman who, fitted out with mask and snorkel, searches for schools of the small sardines that will be used for bait in tuna fishing. Once located, a school is encircled by a net, while the man in the water dives down to free the net's lead weights from the rocky bottom and to check that the fish are not escaping.

A Bonito Feeding Frenzy

After a morning of netting sardines, *Perola* now had bait with which to catch tuna. Manuel motored away from the shore of São Jorge into deeper water. The senior crewmembers scanned the waves with their powerful binoculars. Throughout the morning Perola ran east along the southern coast of São Jorge until Manuel José, the eldest member of the crew, spotted flocks of Cory's shearwaters gliding above the waves. The birds dived and squawked, frothing the water and fighting off bold seagulls that invaded their territory. Manuel manoeuvred the boat to windward of the birds. From the aft deck, Paulo cast sardines to port and starboard to test the water for feeding tuna. Manuel looked to see if anything took the sardines and then peered into a sonar fishfinder. The crew waited patiently. Off to port a fin broke the surface.

The men rushed aft forming a line along the port side of the boat. They were dressed in shorts, T-shirts and rubber aprons. Most of them had on baseball caps with random English inscriptions – "Thomas Produce", "AM Livestock Hauling", "Luso Autobody" – probably gifts from relatives in the United States. A perforated steel pipe, rigged outboard of the gunnwale, sprayed the ocean with seawater and distorted the water's surface, hiding the fishermen from the fish. The men grabbed their cane

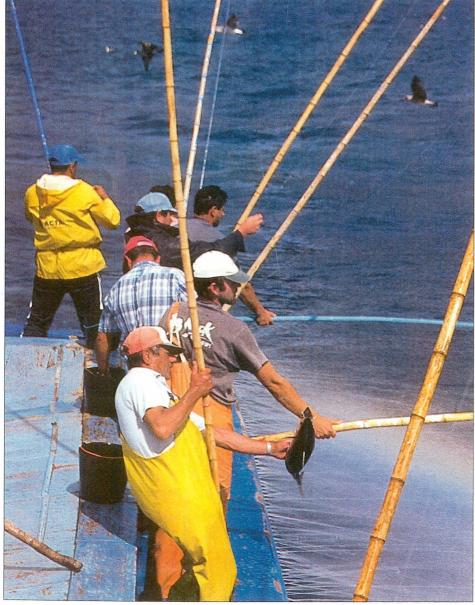


poles, 16'-long shafts of bamboo that had 16' of ¹/₃₂" line tied to the tip. Some poles were customized – painted blue and red or cut to a fisherman's specific size.

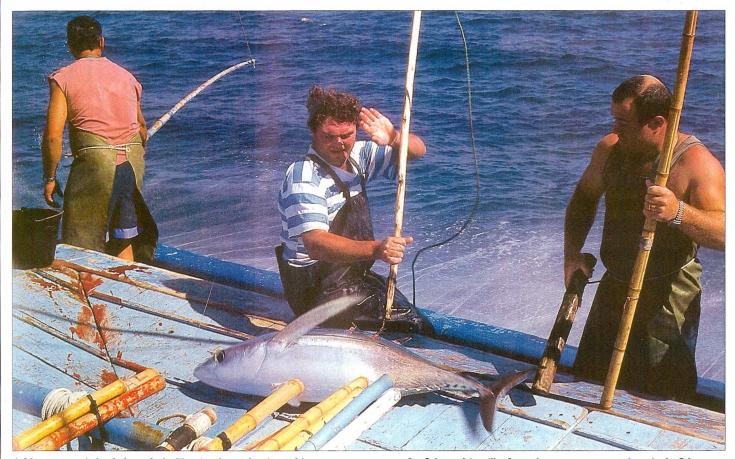
Paulo continued to cast sardines overboard, enticing tuna to the surface. At the same time he passed down black buckets full of sardines for the fishermen to use as bait. When the first hook hit the water, the surface erupted. A shiny, vibrating bonito tuna was swung aboard the boat. The hook was removed and the fish slid into the refrigerated hold.

For the next twenty minutes, the fishermen pulled bonito from the water. The fish beat the deck with their muscled sides. Except for the captain, all hands lined the port side with poles arcing out over the water. Even Daniel rushed from the galley, wiped his hands on his apron and began fishing. At one point a rod was thrust at me and a squirming sardine affixed to its hook. I joined the excited crew and cast the line overboard although I had little idea what I was doing. Cries rang out whenever someone got a hit. They yelled at the fish and then yelled at each other. "More sardines!" someone shouted. "Hurry now, you fool! More sardines!" The crew goaded each other on, swearing when a fish got away. After days of television and dominoes everyone was glad to be on deck killing bonito.

As quickly as they came, the bonito were gone. The sprinkler was turned off, the rods were put away, and the captain, impatient to find more fish, gunned the throttle. The motor – a large 864-hp CMS V-6 – grumbled and bellowed as we got up to speed.



As the boat passes through a school of bonito tuna, every crewmember (including the author) comes on deck, grabs a cane fishing pole and joins the catching frenzy.



A big-eye tuna is landed on deck. Heavier than a bonito, a big-eye puts up more of a fight and it will often take two men to catch a single fish – one man to hold the pole while the other operates the line thus keeping the rod from breaking and the rod operator from being wrenched overboard.

Catching Big-Eyes

For another hour we hunted. Manuel continued to search for the shearwaters that would indicate a school of tuna. He took us all the way down to the tip of São Jorge, often coming close to the shore where tiny, whitewashed houses clung to the hillside. Some of the towns of São Jorge are accessible only by footpaths. Many are at the base of high cliffs, built on the rubble of the eroding island.

At three o'clock, the captain slowed the boat, peered through his binoculars and watched as sardines were thrown to port and starboard: a violent surface ripple and a sardine disappeared. Again the men rushed to the aft deck and prepared their rods. The first pole over the rail doubled up under tension and three men strained to pull the catch from the water. A huge fish, 5' long, swung alongside the hull. Someone reached down, gaffed it through the open gills and, with a jerk, hoisted it aboard. Using a carved wooden club the fishermen beat it unconscious. The fish had large eyes, wing-like pectoral fins, and a gaping jaw - Perola had run into a school of big-eye tuna.

The big-eyes are harder to catch than bonitos. They are heavier and put up more of a fight. Some poles were rigged with an additional cord that went up to an overhead block strung on a chain between the stern and the boat's cabin. One man held the pole while another, standing behind him, operated the cord allowing

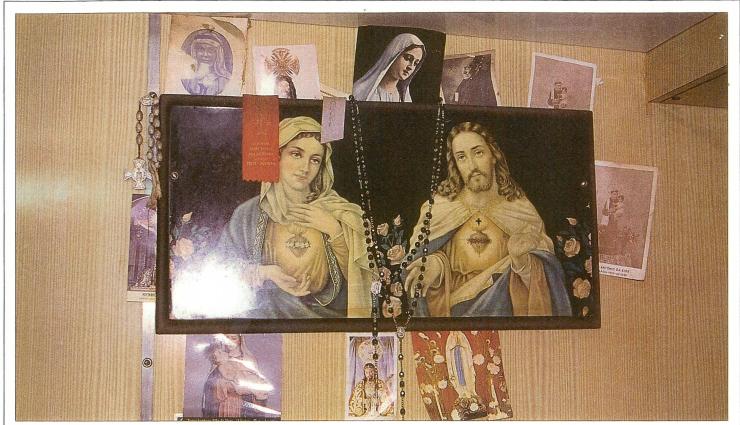


Waiting for a bonito tuna to bite.

the rod to act like a crane. This helped to pull in the heavy big-eyes and kept the rod from breaking or the man holding the rod from being wrenched overboard.

For half an hour they pulled in big-eyes. As I sat on the stern I could see the school gracefully swimming beneath the surface. Gliding and veering through the aqua-blue ocean, the big-eyes' long pectoral fins looked like arms. This tranquil underwater image was a contrast to the carnage on deck. The gaffs punched holes in the fish, which squirted and then oozed dark blood. Scales and sardines littered the deck. Many of the men in bare feet slipped in the gore and grabbed at each other for balance. Blood splattered and dried on their faces while they clubbed the gasping fish. Across the work platform tails beat a tattoo as the fish flipped side to side; their unblinking eyes gazing skyward.

From the bridge, Manuel surveyed the catch. In less than an hour they had caught thirty-eight big-eyes, each weighing 44 to 60 lbs, and stored them in the refrigerated hold. All the fish were kept cold until we arrived back at the dock where they would be cleaned and weighed. When the fishing slowed



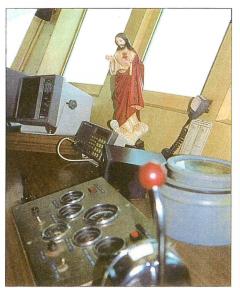
Religious icons are everywhere down below on Perola de Santa Cruz (as on all Azorean fishing boats) - here the images are hung above the author's bunk.

Manuel walked back to the controls, unconsciously sucking at the last of his cigarette, and flicked the filter overboard. For a moment he examined the ocean with binoculars and then thrust the boat into gear — we were off to find the next school of fish.

All day long we searched the waters. Sometimes we would spot another tuna boat and try to see if they were catching anything. Inside *Perola's* cabin the GPS tracker displayed the boat's path over the last three days. The screen showed a confused yellow line like strewn yarn, running straight, doubling back, hugging the shore, and zigzagging across the sea.

For lunch the crew took shifts going below to eat. Daniel had prepared slabs of fried beef, French fries and fried eggs. This was washed down with mugs of Pico wine that left my teeth and tongue purple for the rest of the afternoon. We sat around a linoleum-topped table on a red vinyl bench built into the bulkhead. Because it was a hot day, most of the men were dressed only in shorts and flip-flop sandals. While eating they jokingly poked each other in the sides and called each other foul names. The proper response to such abuse was a shaken fist and threats of a beating. This was usually followed by nipple tweaking, the snatching of baseball caps, and other puerile antics.

To somewhat moderate the rampant swearing, many sentences uttered by the crew invoked the Supreme Being with devotional sincerity. "Thanks to God", "God willing" and "In God's name" peppered the most banal phrases. The whole boat was, in fact, a kind of floating Catholic shrine: figurines of Jesus and Mary flanked the main instrument panel; a small black cross graced the door to the head; cedar boughs hung over the



A statuette of Jesus Christ on the boat's bridge.

electrical outlets for good luck; most of the crew carried amulets of saints around their necks. Of a more pagan nature were the ram's horns, wired to the boat's exhaust stack, alongside the radio antennas.

Throughout the day and into the evening the crew periodically ran out on deck and grabbed their poles when we went through a school of fish. They continued to catch bonitos but no more big-eyes. A few bonitos were sent directly to the cook who cleaned and cut them to be eaten later.

After a dinner of fried sardines and boiled potatoes (by now I was avoiding the Pico wine in favour of water, much to the disappointment of my shipmates) the crew watched television and played dominoes.

As the sun set and the sea became dark, Manuel carefully took the boat into shore and anchored near the town of San Roque off the island of Pico. Two small fishing boats floated nearby in the darkness. They had lanterns mounted on poles and were fishing for mackerel. Some of the crew retired to their bunks in the forepeak while others stayed awake and played dominoes in the saloon. Even after midnight, as I was falling asleep, I could still hear the chink of dominoes hitting the table.

Hand-Lining for Grouper

All day Thursday, Perola criss-crossed the waters south of São Jorge. From time to time we ran through schools of bonito and a few more pounds slipped into the hold. After lunch, the wind died down, the ocean flattened out and the birds disappeared. Up on deck, Manuel still scanned the waters. With no birds, he could only guess where to begin searching for fish. For over three hours the sea was smooth and a hazy sun reflected off the surface. Perola cruised up and down the channel; the other tuna boats were nowhere to be seen. I realized now how dependent the fishermen were upon the seabirds: without the shearwaters, Azorean fishing methods would have to be drastically changed.

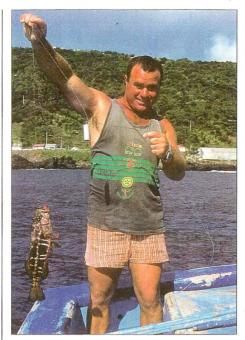
Finally, Manuel gave up looking for tuna and came in close to the São Jorge shore near the town of Calheta. With the boat idling 100 yards from the surf, the men broke out hand-lines with sinkers and hooks. The crew jiggled the gear over the rail, talking to each other, and waiting for a bite. Soon Rui gave a shout and pulled up two red fish, each about 12" long; "Garopa (grouper)," the captain told me.

When the catching slowed Manuel would look into the fishfinder screen. "Não esta mais aqui (No more here)," he would shout down to the crew. More often he would simply yell out a crewman's name and make little gyrations with his index finger indicating it was time to reel up.

In this manner we drifted and motored along the coast of São Jorge pulling in grouper, most of which were cleaned and frozen immediately rather than stored in the refrigerated hold.

Searching for Tuna aboard Perola

By the end of the week, Manuel was looking haggard. We had only caught a few hundred pounds of tuna. Depending on the price at the dock this probably wouldn't pay for the diesel. From dawn to dusk, Manuel had been on the bridge, taking just a short break for lunch. His face was sunburned and unshaven. Beneath the faded-blue baseball cap, his eyes looked tired and bloodshot. Crewmembers were sent down to his cabin to fetch him cigarettes. João, himself a heavy smoker, claimed the captain smoked forty to fifty Gold Flames a day and that this was the root of his stomach problems. Manuel sucked at the smoke then flicked the butt overboard while lighting another. With the



Crewmember Rui handlines a grouper.

binoculars slung around his neck he sighed then lifted them to his eyes to take another look. No fish.

Everywhere Perola ran she found only false leads. We often saw shearwaters feeding on sardines but there would be no tuna. Sometimes a school of tuna was there but would dive deep before a hook hit the water. Sometimes the shearwaters were just clustering together on the sea's surface for no apparent reason. When no fish were biting, the crew cursed at the birds that swooped in to snap at the baitfish. The men beat away the birds with their cane poles. Sometimes a bird grabbed for a sardine and caught a hook in its beak. Then the fisherman would tug and it would pull away, frantically beating its wings. During this tug-of-war I could sometimes see the live sardine still flipping in the corner of the bird's beak, its tail already down the gullet.

In the late afternoon, *Perola* went through a flock of shearwaters and out of the corner of my eye I saw a dorsal fin cutting through the floating birds. Seconds later it rose again, this time revealing a dolphin's sleek profile. Suddenly, the dolphin punched through the surface and was airborne pumping its tail to stay aloft. Such explosive energy surprised me and made me laugh aloud. The fishermen were more amused at my excitement than with the dolphin that now followed in *Perola's* wake, leaping through the waves behind us.

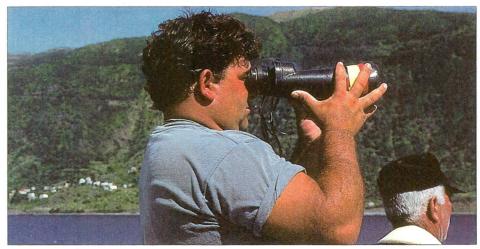
Perola Returns to Port

On Friday night, *Perola* tied up in the harbour of Velas on São Jorge. Some crewmembers believed that tomorrow the captain would head back to Pico to unload our catch. They were ready for a break. Knowing *Perola* would stay put for at least the night, the crew drifted into the cafés and small bars. In groups of twos and threes, they ordered beers and watched a football game on television.

I waited for João while he went into the police station to use the phone. For half an hour he talked to his wife, Martha, and his daughter, Catia, back in Pico. After hanging up he was quiet and withdrawn. Together we walked down the cobblestone streets of Velas and into a bar.

"Man, I can't wait until this winter," said João over a beer. "I'll sleep late on Saturdays, cook big meals... spend time with my family. I can't wait. Just got to make it through the season. Next year I'll get a job as a mason."

After this spark of energy, João looked



Although *Perola* has a sonar fish-finder, the crew also use binoculars to search for shearwaters feeding on sardines – often an indication of the presence of tuna.





Top: Unloading big-eye tuna in Madelena – while the individual fish were impressive, the size of the catch was disappointing. Above: Bonito tuna dry in the sun on the dock in Pico.

tired. We finished our beers and went back to *Perola*. From across the harbour I could hear the generators grinding away, pumping saltwater through the bait wells. The stark halogen floodlights lit up the hull, a few locals stood on the seawall chatting with some of the crew. João and I jumped to the wooden deck and said goodnight to each other.

By the time I awoke on Saturday morning, *Perola* was already halfway to Pico. Manuel had decided to depart early and by 8.00a.m. we were in the town of

Madelena tied up to the jetty.

The tuna were unloaded into trucks with a small crane: first the big-eyes with a rope around their tails and then the bonito in a big steel hopper. The trucks took the fish to a refrigerated warehouse to be cleaned. Much of the tuna is sold locally but some

of it is canned and exported.

While unloading the tuna, the captain's wife arrived and dropped off their twoyear-old son and Manuel's father. I was put in charge of Manuel junior while the captain monitored the unloading. He was a strong, assertive child. First, he insisted on boarding Perola, then he began climbing the steel stairs to the wheelhouse. I clambered after him afraid he might slip into the ocean. Still not satisfied with the view from the main deck, he pulled himself up the second staircase to the top deck. On the bridge he went straight for the wheel and managed to muscle himself up onto the spokes where, having finally reached the top of the ship, he grabbed the throttle and jerked it back-and-forth sputtering, "Broom, broom, broom."

Down on deck I could see his father scratching his chin and talking with his grandfather while the tuna were lifted from the hold. I wondered if Manuel junior would someday talk with his father in a similar setting.

Everything seemed suddenly fragile – at the whim of the Gulf Stream that would or would not bring the tuna. A fickle arm of warm water that could determine the career of Manuel junior, now oblivious to these forces and playing happily at the wheel of his father's boat. With the two-year-old in my arms, I climbed back to the main deck. I met João who was leaving to visit his wife and daughter. He was in a hurry and we said our good-byes more quickly than we would have liked. He only had twelve hours of leave to see his family... *Perola* was heading out for another trip at midnight.

Bruce Halabisky is a wooden-boat builder and freelance writer living in Rockland, Maine.

Santo Amaro: The Boatbuilding Village

n the north side of Pico, away from the bigger towns of Madelena and Lajes, is the village of Santo Amaro. Over the centuries the inhabitants have constructed low walls of volcanic stone to protect the grapevines from the winds and salt spray of the Atlantic Ocean. These black walls also line the road leading down from the estrada principal to the town centre. Before arriving in town, the road divides and the first-time visitor becomes confused: it seems this small town of 300 people has two centres. One road leads to the traditional centre featuring a whitewashed church and red-awning café while the other leads to a more impressive centre filled with pickup trucks, dusty workers and workshops facing the small harbour. This is where, in the working centre of Santo Amaro, Perola de Santa Cruz was built.

By far the largest building in Santo Amaro is the workshop of João Alberto Neves. Over the last fifteen years he has overseen the construction of ten of the twelve existing wooden tuna boats in the Azores. I found him in the back of his shop picking through galvanized bolts in a metal filing cabinet. A strong looking man in his sixties, he had a calmness that can sometimes come from years of managing large projects. He smiled when I told him I had been aboard *Perola*.

"Yes, I like that boat," he said fondly. "We built her in 1988. Later I built some other styles with higher cabins but I always preferred the earlier boats." Saying this, he showed me a list on the wall with the launching dates of the Azorean wooden tuna fleet. João Alberto's



Perola dos Açores under construction in the village of Santo Amaro in 1990. Built by João Alberto, she is of similar dimensions to her near-sistership Perola de Santa Cruz.

master, José Costa, launched the first two boats in 1983 and 1985. After José Costa died, João Alberto set out on his own. Between 1987 and 1994 ten tuna boats slid from his yard into the tiny Santo Amaro harbour.

Although each project had slight variations, all ten boats built by João Alberto are similar in dimensions. *Perola de Santa Cruz*, as an example, is 100' long, with a beam of 23' and a draught of nearly 10'. João Alberto explained that a tuna boat takes ten months to build with a crew of thirty men. Between 1988 and 1991 he produced an astonishing two boats a year. It impressed me that this tiny town could support the construction of two boats side by side – sixty men planing, cutting, and fitting all the parts that make up a wooden boat.

Much of the wood used to construct the

tuna boats comes from the islands. The keel and stem are made from a local pine, the frames are sawn crooks of acacia and the deck is also made of pine. Only the planking material is imported – a resinous pine from Brazil that is finished to $2^3/8$ " thickness.

I noticed that the last launching was that of *Falcao do Mar* in May of 1994 and I asked João Alberto if any other boats have been built here since then.

"No," he said firmly. "We do maintenance and restoration but most of our work now is milling flooring for houses. The Spanish are building steel ships; less work, and they last longer. Besides, there are not many tuna these days. *Ponco peixe*, *ponco peixe* (Few fish, few fish)," he said, shrugging his shoulders, "It's over."





Left: The flared bow and narrow entry is typical of the Azorean fishing boat. Right: the Perola dos Agores on her launching day.