

By Randall Hyman

ICELAND'S BOUNTY

Photography by Randall Hyman

As global fisheries dwindle and nations like Canada and Spain come to blows on the high seas, Iceland is often cited as a model of confrontation turned to conservation. But can this tiny Nordic country truly lead the way into a new era, or are these modern Vikings hooked on bad habits of plunder?



A fisherman yanks open a net of freshly caught cod and flounder. Restrictive quotas imposed by Iceland in the 1970s and 1980s have contributed to healthy fish stocks in this decade.

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breaches. It continues for nearly an hour as the ship cruises the northwestern sector of Iceland's territorial waters on a rainy summer evening.

"They eat a lot of fish," observes Captain Halldor Gunnlaugsson, shoving a window closed in the bridge and setting down his binoculars. "We're in heavy competition with them."

Sharing the ocean's bounty with anyone, including marine mammals, doesn't come easily to Icelanders. In a country where fish—mainly cod—comprise 80 percent of all exports, Iceland has always gone to great lengths to claim the rich fishery resources off its shores. But competing only with marine mammals is a relatively recent luxury. In the past, the main competition came from foreign boats, even though overfishing left less and less to fight over.

The toughest battles were fought by the coast guard. Every member of Tyr's crew remembers the Cod Wars. These high seas skirmishes over the highly priced cod were a dangerous affair. In three separate incidents between 1958 and 1975, Iceland and Britain scuffled at sea over fishing rights. In each case, Iceland had unilaterally moved its coastal fisheries limits further off its shores, first from 4 miles to 12, then to 50, and finally to 200 miles. And in each case Britain objected. As the stakes became greater with each Cod War, the action became more violent.

When Iceland last squared off against England in 1975, a fleet of foreign trawlers, principally British, were fishing the all-important cod into oblivion just 50 miles off Iceland's coast. Unable to control the fishing frenzy that was threatening to

leave the island nation destitute, Icelandic scientists and politicians agreed that their fishing perimeter would have to be moved out to 200 miles to regulate fish resources and conserve the cod stocks. While Britain hotly contested this action through diplomatic channels, Iceland's coast guard began cutting the nets off the English trawlers that refused to leave. Britain answered with the Royal Navy.

"They were very big ships and much faster than ours," recalls Tyr's chief mate Jon Pall Asgeirsson, who was a seaman on a coast guard ship during the confron-



Computerized factory ships have the potential to completely wipe out certain fish populations.

tation. "We were trying to cut the gear off the English trawlers while their naval frigates were trying to protect them."

One Icelandic vessel was badly rammed by a British warship. "When he smashed us the last time, he landed on our starboard stern and ripped a huge hole two metres high and 15 metres long in his own hull. Chairs and furniture fell out," Asgeirsson adds with a wry smile. "A picture of Prince Philip also fell out the hole. We heard that the sailor who saved it later got a medal. The picture of the queen was lost."

It was more than a symbolic loss. Dead in the water, the warship was soon limping home to England with the British trawlers not far behind. Iceland ruled the waves. To

this day, foreign nations, like Norway and Belgium, are allowed to take only a small amount of fish from Icelandic waters.

If Icelanders thought it would be smooth sailing after that, they were wrong. With foreign trawlers gone, fisheries in Iceland soon discovered they were their own worst enemy. Within a decade, the cod, which accounted for well over half the value of the national catch, was nearly gone. Iceland turned to its research scientists.

"We worry because of the fish industry's growing high technology and efficiency," explains Johann Sigurjonsson, deputy director of Iceland's Marine Research Institute, referring to the computerized factory ships that now prowls the seas like leviathan vacuum cleaners. "We know it's possible to completely wipe out fish populations, and our task is to provide advice that will allow us to avoid such events."

The advice the institute's scientists gave politicians in the early 1980s was to cut the cod harvest in half or face having no cod at all. The politicians agreed, adding their own twist: the kvota, or quota system. Strict measures would be enforced: boats that filled their quota of cod would have to dump any additional catches overboard or face heavy fines. Also, conservation areas were set aside where fishing was completely restricted.

In the 10 years since, Iceland's fish stocks have made a miraculous recovery while other fishing nations have watched their catches continue to dwindle. The Icelandic quota system has become a model for fisheries management worldwide, but within Iceland there is bitter dissension.

Fishing for solutions

"The cheating is bad, but the system stinks," says Hjalmar Jonsson aboard his 4.5 tonne fishing boat off Iceland's west coast. Jonsson spends summer vacations as a fisherman, but works the rest of the year for the coast guard.

According to Jonsson, the most common way to beat the system is for small boats to gather around larger ones that have overfished their limit of certain species. Instead of dumping the fish back into the sea as required by law, the large boats unload their excess catch onto the small boats.



Karl Olafsson, captain of a smaller fishing trawler, echoes Jonsson's frustrations while crew members from Tyr conduct a routine inspection of his ship at sea. "We leave port at five in the morning and get home at nine in the evening. In a year we fish about 600 tonnes, but no more than 15 percent of that can be cod."

Studying the array of high-tech sonar and radar imaging equipment in his steering house, he points to a dark red spot on the computer monitor map. "There. That's a school of very big cod, but it's a protected area. Too bad. It would take fewer fish from there to equal the tonnage we can fish from here."

After measuring the mesh size of Olafsson's nets, checking his documents, and recording catch data, the inspection

team heads back to Tyr in a rubber dinghy.

"It makes me sad," laments one of Tyr's deckhands that evening, gazing at the red and green lights of fishing boats trailing past the black fjord walls. "Imagine if cowboys had suddenly needed a licence in the old days," he adds, recalling times past when there were few laws and fishermen hauled in as much as they pleased.

Fisheries scientists say that this new reality is just the point. Like buffalo in the American West, there are just too few fish left in the ocean to allow us to ride herd over them.

Landing the catch

Squeezed by tighter quotas, Iceland's ship and factory owners have proven very adept at developing new markets. By 1991, fisher-

men were harvesting neglected commercial species such as orange roughy. Shrimp, once a minor part of Iceland's catch, is now shipped to North America on a par with cod. Some factories have cultivated business with Eastern Europe, processing Russian fish bound for Canada in Iceland's efficient and sanitary factories.

In the Westmann Islands off Iceland's south coast, the country's principal fishing port, factories process fish in just about every form imaginable, from frozen fillets to salt-dried flats to fish meal. Inside the Isfelig company's ultramodern facility, rows of young and old women armed with Walk-

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mans and scalpel-sharp knives stand on both sides of endless conveyor belts dressed like surgeons, deftly slicing impurities from fillets that churn out of automated slicing machines. Downstairs, specific fish parts are collected in bins bound for different countries. There is little waste.

"These cod chins go to Sweden," shouts a worker over the deafening whine and whiz of cutting machines. Forklifts race back and forth with other bins of fish, dodging past one another like a demolition derby. Workers slosh in rubber boots

across the cement floor through the water, fins, and crushed ice being washed down drains. "The Portuguese like the throat, and the rest of the head is dried and salted and shipped to Africa."

Outside an acrid odour fills the air. It wafts over from a smokestack at the other end of town where excess fish parts are made into fish meal. Icelanders call it the peningalykt, or smell of money. It is a smell that fewer and fewer fishing villages around Iceland enjoy these days.

In addition to the national catch limit that many nations use, Iceland's kvota assigns specific catch limits to individual vessels. In order to ensure that Iceland could compete on the world fish market, fishery officials assigned higher catch quotas to larger ships, forcing many smaller ships out of business. This strategy reduced the national fleet but increased profits. Larger boats, higher quotas, and lower costs have made Icelandic fishermen five times more efficient than their European counterparts, but they have paid a stiff price, with a 30 percent drop in fisheries employment since 1975.

Today, only 12,000 Icelanders work in fisheries. A mere 11 percent of the national work force produces 80 percent of all exported goods. By increasing profits and decreasing fishing pressure, the new regulations have revived the nation's economy and fisheries while strangling some of the fishing villages that dot Iceland's coast.

Tyr makes an unscheduled stop for provisions at an isolated town in the West Fjords. Once a busy fishing centre, Bildudalur lost its only trawler in 1990 when a local company sold the boat and its quota to another village to pay off debts. The town's only freezing and packing plant was soon out of business. Two years ago a shipowner raised local hopes by purchasing another trawler to be based out of Bildudalur, but within a year he saw greater profit in



Crew members from the coast guard ship Tyr measure fishing net aboard a trawler.



Other species, such as shrimp, fill the void left by tighter cod quotas.



An ocean nation: fish destined for local consumption dry in the open air.

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reselling the boat and its quota to another part of Iceland.

The modern fish plant is gone, and the town's main employer is now a small, dated, fish filleting and drying facility. Inside a squat, concrete ware-

house, teams of women bustle around tables stacked with dried fish bound for Spain. Life here has always been at the mercy of the vagaries of the harsh North Atlantic climate, but the trade in quotas has added a new uncertainty. Like American cities vying for pro ball teams, Iceland's fishing villages are competing with one another to attract quota owners. And there just aren't enough to go around.

"It used to be that everybody fished, but we can't do that anymore," says Thorur Asgeirsson, director of the government's Directorate of Fisheries. "We used to manage fisheries like they do with salmon in Alaska. But with that system you just end up fishing fewer and fewer days each year. Finally, there would be no unhappy fishermen because there wouldn't be any fishermen at all."



its own 200-mile limit to supplement its catch in unregulated waters is ominous. Icelanders appear unwilling to abide by their own quotas. Like fishermen everywhere, they are hooked on bad habits.

As the world's fisheries continue to de-

Beacon of hope: improving fish stocks mean a brighter future for small, isolated communities.

Global crossroads

While Iceland's fish stocks may eventually recover to high enough levels to save remote fishing villages, the nation's largest ships aren't waiting. After filling their quotas each year, most trawlers sail outside the 200-mile zone to fish international waters where there are no regulations at all. In the last few years, the most popular destination has become the legendary Smuga, north of Norway in the Barents Sea.

Norwegians and Russians have traditionally fished this area, and the Icelanders are not welcome newcomers. In a few short months each autumn, the Icelandic boats fish over 30,000 tonnes of cod in the Smuga, equivalent to one-quarter the entire annual cod quota in their own waters.

But the Norwegians are making new fishery management claims over this area. Taking a lesson from the Icelanders in their Cod Wars against the British, Norwegian naval ships have arrested, clipped, and fired at Icelandic trawlers in the Smuga region. Icelanders are as chagrined as they are angry. After all, they invented the clippers used for cutting trawler nets.

Ultimately, the new UN Convention on the Law of the Sea negotiated last year may tip the scales in favour of Norway. Supported heavily by Canada, the law allows nations to extend their jurisdictions for the purpose of fish conservation. But the fact that Iceland must still go outside

The fishing community of Isafjörður, or "Ice Fjord", huddles below a snowy mountain at the ocean's edge.



cline, countries are squabbling more and more over fishery resources: Russians firing on Japanese in the Kuril Islands, Scottish fishermen attacking a Russian trawler, and Canadians arresting Spanish trawlers on the Grand Banks of Newfoundland. Nations are at the verge of a sea change, and we must ask ourselves—can we curb our voracious appetites before we deplete the larder?

"According to the new law of the seas," muses Captain Gunnlaugsson aboard *Tyr*, "we could claim waters far outside our 200-mile limit—to 300 or 350 miles. Iceland has always been the first state to extend its territory."

Plowing through deepening swells, Gunnlaugsson steers the *Tyr* towards home. He knows only too well that expanding the fishery limits would lead to more confronta-

tion, more cod wars. Iceland would be far better served by building a sustainable fishery within its own waters. And showing other nations how to do the same. ♣

Randall Hyman speaks Icelandic fluently and has frequented Iceland for 20 years. His article and photographs on South African wildlife appeared in our November/December 1995 issue.